Owner's Operating Service Instruction Manual

10¢

Model Nos.
136-480A
136-485A

- ASSEMBLY
- OPERATION
- REPAIR PARTS

34" RIDING MOWERS

MTD PRODUCTS INC • 5389 WEST 130th STREET • P. O. BOX 2741 CLEVELAND OHIO 44111
PRINTED IN U.S.A.
FORM NO. 770-6037

IMPORTANT

It is suggested that this manual be read in its entirety before attempting to assemble or operate. Keep this manual in a safe place for future reference and for ordering replacement parts.

This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see operating section of this manual for proper fuel and amount.

SAFE OPERATION PRACTICES FOR RIDING VEHICLES

1. Know the controls and how to stop quickly— READ THE OWNER'S MANUAL.
2. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction.
3. Do not carry passengers. **Keep children and pets a safe distance away.**
4. Clear work area of objects which might be picked up and thrown.
5. Disengage all attachment clutches and shift into neutral before attempting to start engine.
6. Disengage power to attachment(s) and stop engine before leaving operator position.
7. Disengage power to attachment(s) and stop engine before making any repairs or adjustments.
8. Disengage power to attachment(s) when transporting or not in use.
9. Take all possible precautions when leaving vehicle unattended such as disengaging power-take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.
10. Do not stop or start suddenly when going uphill or downhill. Mow up and down face of steep slopes; never across the face.
11. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
12. Stay alert for holes in terrain and other hidden hazards.
13. Use care when pulling loads or using heavy equipment.
    A. Use only approved drawbar hitch points.
    B. Limit loads to those you can safely control.
    C. Do not turn sharply. Use care when backing.
    D. Use counterweight(s) or wheel weights when suggested in owner's manual.
14. Watch out for traffic when crossing or near roadways.
15. When using any attachments never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
16. Handle gasoline with care—it is highly flammable.
    A. Use approved gasoline container.
    B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
    C. Open doors if engine is run in garage—exhaust fumes are dangerous. Do not run engine indoors.
17. Keep the vehicle and attachments in good operating condition, and keep safety devices in place. Use guards as instructed in owner's manual.
18. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
19. Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
20. To reduce fire hazard keep engine free of grass, leaves or excessive grease.
21. The vehicle and attachments should be stopped and inspected for damage after striking a foreign object, and the damage should be repaired before restarting and operating the equipment.
22. Do not change the engine governor settings or overspeed the engine.
23. When using the vehicle with mower, proceed as follows:
    (1) Mow only in daylight or in good artificial light.
    (2) Never make a cutting height adjustment while engine is running if operator must dismount to do so.
    (3) Shut engine off when removing grass catcher and/or unclogging chute.
    (4) Check blade mounting bolts for proper tightness at frequent intervals.
24. Check grass catcher bags frequently for wear or deterioration. Replace with new bags for safety protection.
25. Look behind to make sure the area is clear before placing the transmission in reverse and backing up.

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GRASS CATCHER Model No. 196-015A is available as optional equipment for the mowers shown in this manual.

WARNING

The mower should not be operated without the entire grass catcher or chute deflector in place.

NOTE

Under normal usage bag material is subject to wear, and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations.

For replacement bags, use only factory authorized replacement bag No. 764-0121.

IMPORTANT

After striking a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

The steering wheel and seat, with the necessary hardware, are easily assembled to the machine. On the electric starter models, the battery must be activated and installed as outlined in this section.

TIRE PRESSURE

FOR SHIPPING PURPOSES, THE TIRES ON YOUR UNIT MAY BE OVER-INFLATED. TIRE PRESSURE SHOULD BE REDUCED BEFORE UNIT IS PUT INTO OPERATION. PRESSURE SHOULD BE APPROXIMATELY 15 P.S.I. EQUAL TIRE PRESSURE SHOULD BE MAINTAINED ON ALL TIRES. MAXIMUM TIRE PRESSURE IS 30 P.S.I.

NOTE

Reference to right-hand or left-hand side of machine is from the driver's seat facing forward.

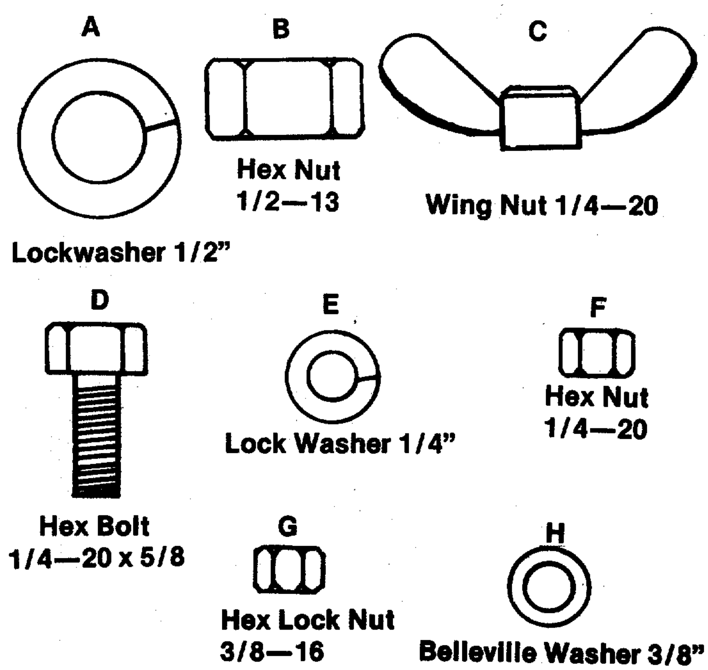


FIGURE 1. HARDWARE SUPPLIED

ASSEMBLY

Step 1. Remove the lawn mower and all parts from the carton. Make certain that all loose parts and literature have been removed before the carton is discarded.

Step 2. Place steering wheel over steering shaft.

Step 3. Secure with Belleville washer and hex nut. See figure 2.

Step 4. Press the cap on the steering wheel by hand. See figure 2.

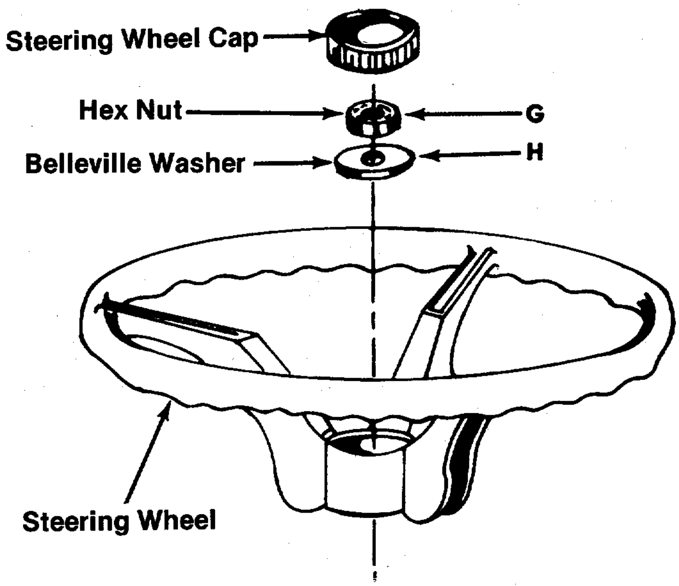


FIGURE 2. STEERING WHEEL ASSEMBLY

Step 5. Your molded seat comes with the mounting bolt molded in the seat.

A. Select one of three hole locations on seat spring.

B. Place seat on spring and secure with lockwasher (A) and hex nut (B). See figures 1 and 3.

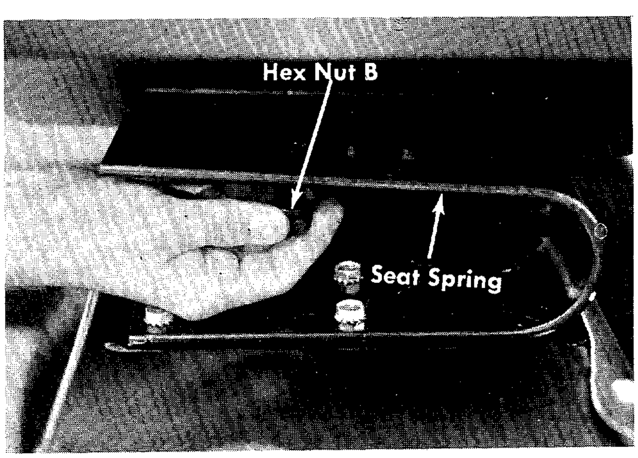


FIGURE 3. SEAT ASSEMBLY

NOTE

Check ALL nuts and bolts for correct tightness.

BATTERY INFORMATION FOR ELECTRIC START MODELS



WARNING

A. Battery acid must be handled with great care as it will blister the skin and damage clothing. It is advisable to wear goggles, rubber gloves, and a protective apron when working with it.

B. Neutralize acid spilled on clothing with dilute ammonia water or a water solution of baking soda. If acid gets on clothes, dilute it with clean water first, then neutralize.

C. If for any reason acid should be spattered in the eyes, wash it out immediately with clean cold water. Seek medical aid if discomfort continues.

D. Since battery acid is corrosive to metals, do not pour into any sink or drain. Rinse empty electrolyte containers and mutilate before discarding.



DANGER

BATTERIES CONTAIN SULFURIC ACID AND MAY CONTAIN EXPLOSIVE GASES (when electrolyte has been added)

A. Keep sparks, flame, cigarettes away.

B. Hydrogen gas is generated during charging and discharging.

C. Ventilate when charging or using in enclosed space.

D. When using a charger—to avoid sparks, NEVER connect or disconnect charger clips to battery while charger is turned on.

E. Always shield eyes, protect skin and clothing when working near batteries.

ACTIVATING THE BATTERY

1. Place battery to be filled on bench or workbench. NEVER activate battery in unit. Remove vent caps from all cells.
2. Fill each cell carefully using battery grade 1.250-1.265 specific gravity. Sulfuric acid to be 3/8" above the top of the separators or to split ring.
3. Allow battery to set for 20 minutes to ½ hour. Add additional acid if necessary to bring it up to the proper level.
4. Replace the vent caps.
5. The battery can now be charged after the 20 minutes setting period. Battery can be SLOW CHARGED (DO NOT FAST CHARGE) at a maximum bench rate of 4-5 amperes until the specific gravity reading is 1.265-1.275. A charging rate in excess of this will buckle and warp the positive plates and perforate the separators. If electrolyte bubbles violently while charging, reduce charging rate until excessive bubbling action subsides, then continue charging until specific gravity is reached.

CAUTION

After battery has been in service, add only approved water. DO NOT ADD ACID.

B. TO INSTALL BATTERY

To install the battery in this unit, refer to next column.

C. MAINTENANCE

1. Check periodically (every two weeks or before and after charging) to be sure electrolyte level is 9/16" above separator plates. Add only distilled water or good quality drinking water. NEVER add additional acid or other chemicals to battery after initial activation.
2. The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225 remove battery and recharge.
3. Coat the terminals and exposed wiring with a thin coat of grease or petroleum jelly for longer service and protection against electrolyte corrosion.
4. The battery should be kept clean. Any deposits of acid should be neutralized with soda and water. Be careful not to get this solution in the cells.

D. STORAGE

1. Charge battery using normal methods. NEVER store discharged battery as it will not recover.
2. Store in cold, dry place.
3. Recharge battery whenever the specific gravity is less than 1.225 before returning to service or every two months, whichever comes first.

E. COMMON CAUSES FOR BATTERY FAILURE ARE:

1. Overcharging
2. Undercharging
3. Lack of water
4. Loose hold downs and/or corroded connections
5. Excessive loads
6. Battery electrolyte substitutes
7. Freezing of electrolyte

NOTE

THESE FAILURES DO NOT CONSTITUTE WARRANTY.

LIMITED WARRANTY

For ninety (90) days of original retail purchase, the battery carries a limited warranty against faulty material or workmanship by the battery manufacturer.

INSTALLING THE BATTERY

1. Open the hood of the riding mower.
2. Place the battery in the battery case with the terminal to the front. See figure 4.

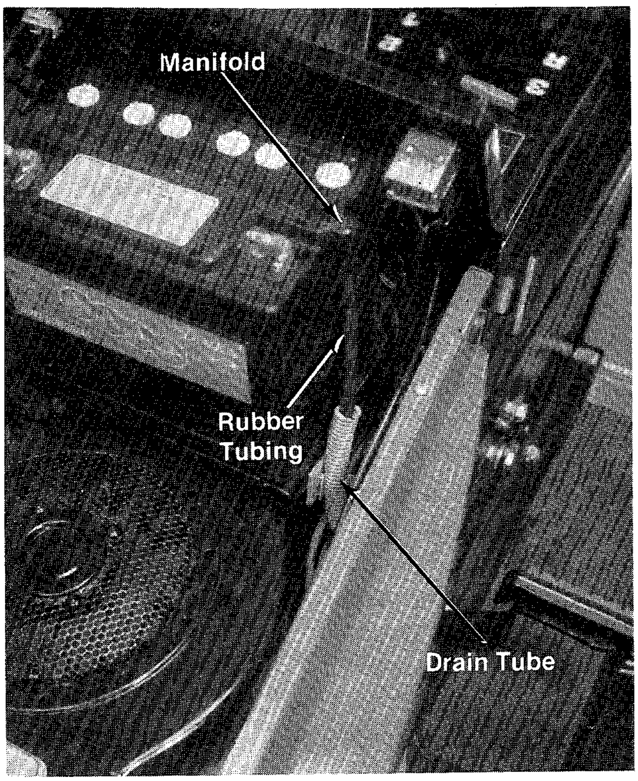


FIGURE 4.

3. Cut the black rubber tubing approximately 4 inches long.

4. Push the rubber tubing into the manifold of the battery and place the other end into the drain tube. See figure 4.

NOTE

The vented battery allows any gases or liquid from the battery to be carried to the rear of the mower through the drain tube.

5. Hook the hold down rods under the battery case and place the hold down over the manifold of the battery as shown in figure 5.

6. Secure the hold down with the wing nuts.

7. Attach the positive cable (from the starter solenoid) and the small wire (from the ammeter) to the positive battery terminal with the bolt, lockwasher and nut in the assembly pack.

8. Attach the negative cable, grounded, to the negative battery terminal with the bolt, lockwasher and nut in the assembly pack.

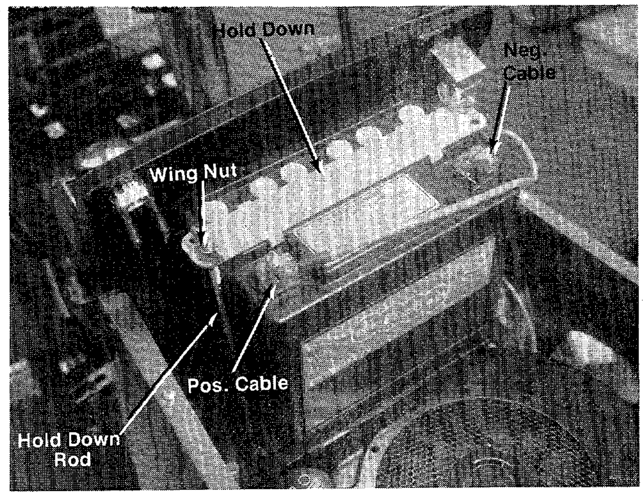


FIGURE 5.

CONTROLS

The controls on both models may be considered as the Drive Control and the Cutting Control as follows:

a. Throttle Control. The throttle control is used to regulate the engine speed and choke the engine. The engine should be operated from ¾ to full throttle when operating the cutting deck or snow thrower (optional). See figure 6.

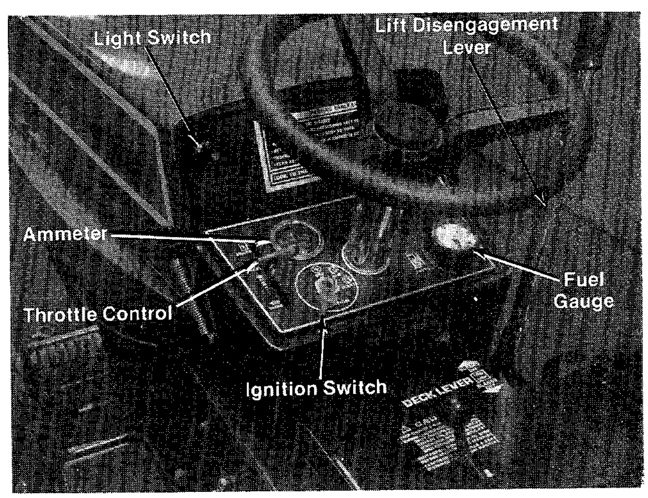


FIGURE 6. CONTROLS

b. Gear Shift Lever. The gear shift lever is used to shift into one of four **Forward Gears,** NEUTRAL or REVERSE. See figures 6 and 7.

c. Brake. The brake pedal is located on the right hand side of the mower and is operated by depressing it with your right foot. See figure 8.

d. Brake Lock. The brake lock is located on the right hand side of the mower. To lock the brake, depress the brake pedal and lift up the lock button. The pedal will stay depressed. To release, depress the pedal. See figure 8.

e. Clutch Pedal. The clutch pedal is used to disengage the drive mechanism. Depressing the clutch pedal at any time will reduce mower speed. If depressed all the way, it will stop the mower. See figure 9.

f. Clutch Lockout. When the clutch pedal is depressed all the way it can be locked by placing the clutch lockout in the START position as shown in figure 9. The clutch lockout must be in this position before the engine will start.

g. Ammeter. (Electric Start Model Only.) The ammeter registers the rate of battery charge or discharge. The ammeter should register on the plus (+) side when the engine is running in the fast position until the battery is completely charged. With a fully charged battery or with the engine idling the ammeter will not show a charge. See figure 10.

h. Light Switch. (Electric Start Only.) Pull the light switch out to turn on the lights. The lights will only operate when the engine is running. See figure . .

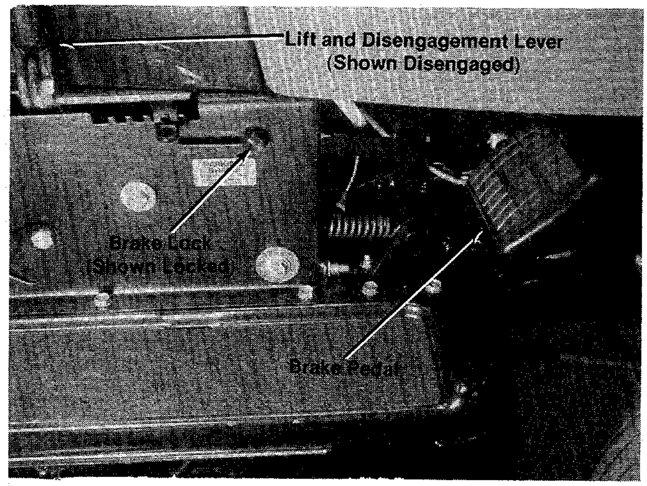


FIGURE 8. RIGHT HAND CONTROLS.

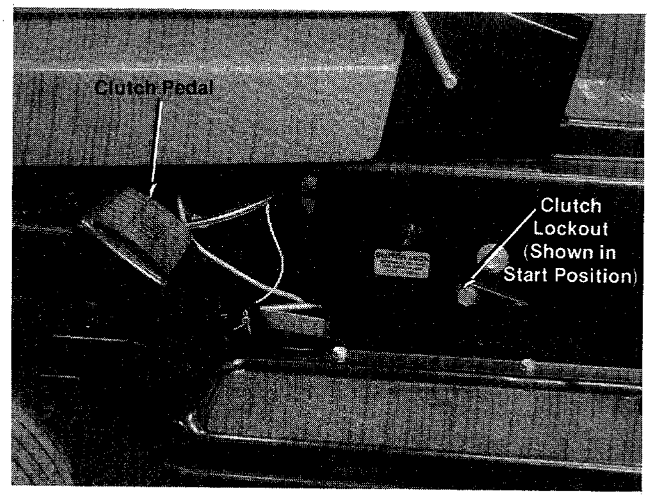


FIGURE 9. LEFT HAND CONTROLS

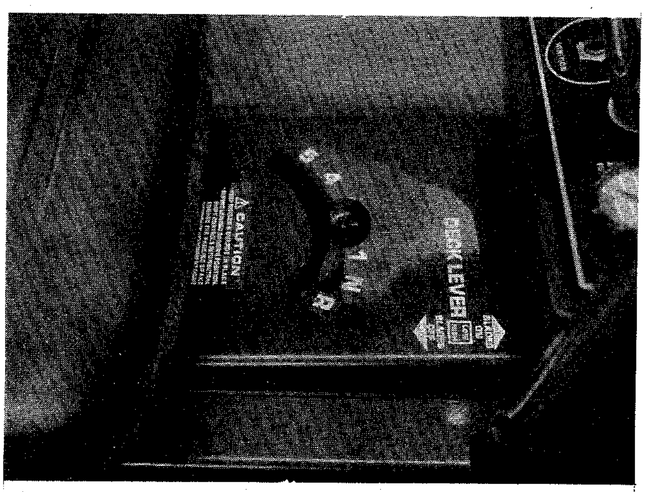


FIGURE 7. SHIFT PATTERN

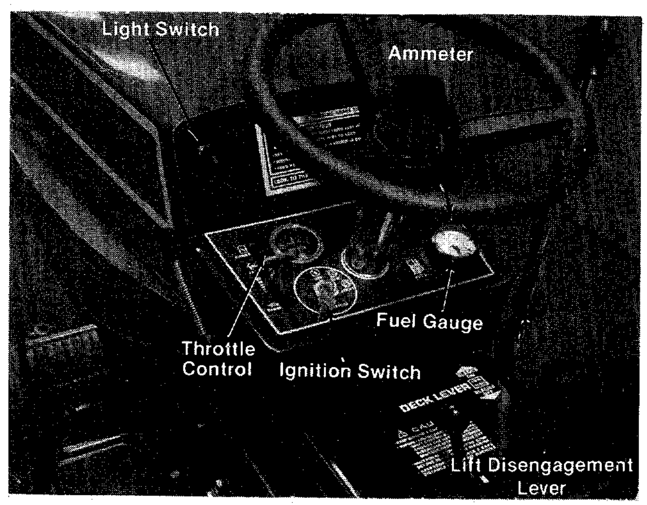


FIGURE 10. ELECTRIC START MODEL

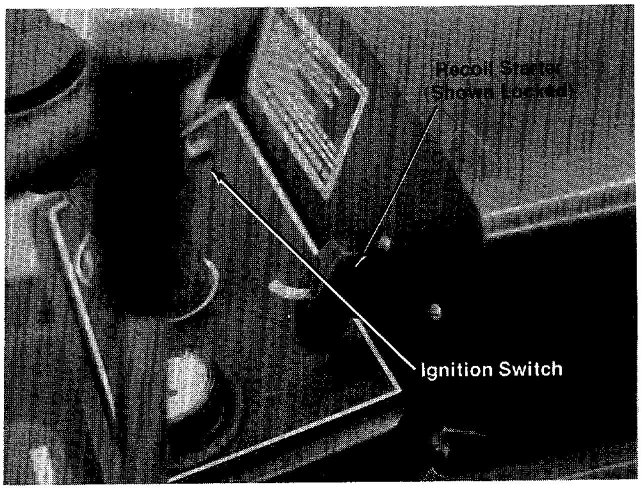


FIGURE 11. RECOIL START MODEL.

i. Ignition Switch. The ignition switch is located on the right side of the dashboard.

Recoil Model. See figure 11. Turn the key to the ON position when starting the engine. To stop the engine turn the key to the left to the OFF position and remove the key to prevent accidental starting.

Electric Start. See figure 10. Turn the key to the START positon to start the engine. When the engine is running, let the key return to the ON position. To stop the engine, turn the key to the left to the OFF position and remove it to prevent accidental starting.

NOTE

The engine will not start unless the clutch lockout is in the START position and the lift lever is in the DISENGAGED position.

j. Recoil Starter. The recoil starter is located on the right side of the dashboard. The recoil starter can either be pulled while seated on the rider or pulled while standing behind the rider. The ignition key must be on before the engine will start. After the engine starts, the recoil starter handle must be returned and locked into the dashboard before the blades or clutch are engaged. The engine will stop if you do not follow these instructions. See figure 11.

k. Lift and Disengagement Lever. It is used to raise the cutting deck. Pulling it all the way back and locking it disengages the blades. The engine will not start unless the lift and disengagement lever is in the disengaged position. See figure 10.

l. Cutting Controls. The cutting controls consist of the height of cut stop and the wheel height adjusters.

Height of Cut Stop. See figure 12. Lift the stop and set it at the desired cutting height.

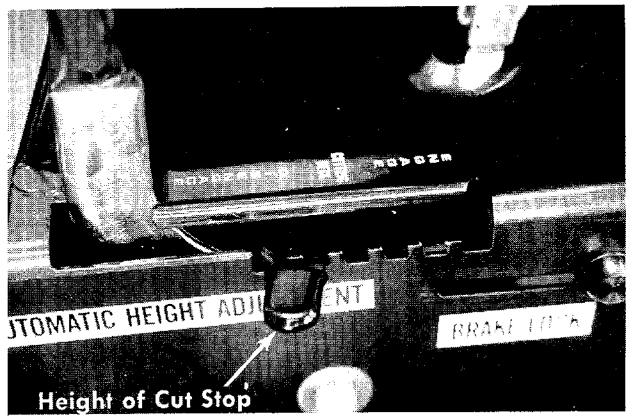


FIGURE 12. HEIGHT OF CUT SETTINGS

Wheel Height Adjuster. See figure 13. Move the lever towards the wheel and set it in the desired cutting height.

The cutting height of the mower can be set in two different ways: FULL FLOAT position where the deck follows the contour of the ground, and the SUSPENDED position where the deck hangs from the frame of the rider. The suspended position is normally used for cutting rough uneven ground.

To set the cutting deck in the full float position, set the wheel height adjusters in the desired cutting height as indicated in figure 13. Set height of cut stop in the 1½ position. See figure 12.

To set the cutting deck in the suspended position, set the height of cut stop in the desired cutting height and then set the deck wheel so they just clear the ground.

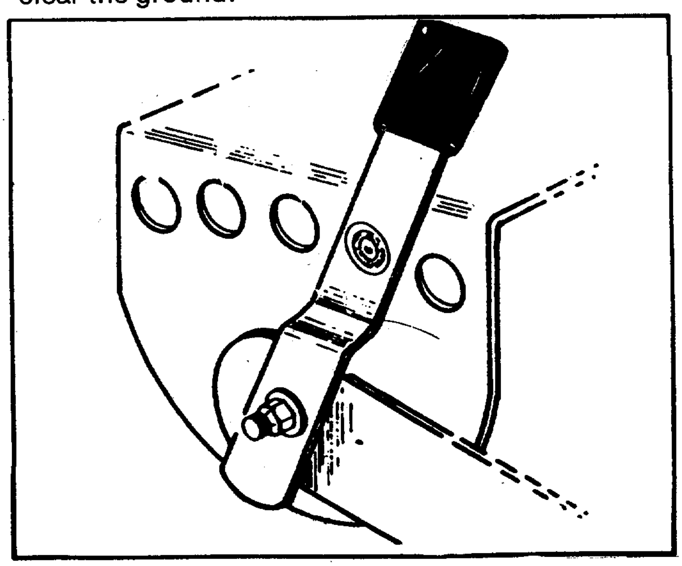


FIGURE 13. WHEEL HEIGHT ADJUSTER

CAUTION

Parking Brake MUST be disengaged before unit is put into motion.

NOTE

Unit is equipped with separate brake and clutch pedals. To efficiently stop, it is necessary to disengage clutch when applying brakes.

OPERATING INSTRUCTIONS

STARTING THE ENGINE

Be sure to follow the instructions for the oil and gasoline as described in the engine manual.

Step 1. Be sure the fuel shut-off valve is open. See figure 14.

Step 2. Place the clutch lockout in the START position. See figure 9.

Step 3. Place the lift and disengagement lever in the DISENGAGED position. See figure 12.

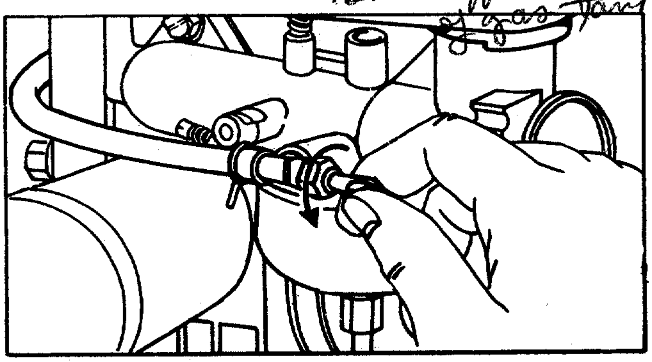


FIGURE 14. FUEL SHUT-OFF VALVE

Step 4. Set the throttle control in the CHOKE position. See figure 10.

Step 5. **Recoil Starter.**

a. Turn the ignition key to the ON position. See figure 11.

b. Grasp the recoil starter, unlock it by twisting it ¼ turn and pull it out sharply and hold it in the out position.

c. Slowly release the recoil starter and lock it into the dashboard as shown in figure 11.

Electric Start.

See figure 10. Turn the ignition key to the START position. When the engine is running, let the key return to the ON position.

To stop either model, turn the key to the left to the OFF position and remove the key to prevent accidental starting.

NOTE

A brief break-in period is essential to ensure maximum engine and mower life. This consists of running the engine at half speed for a period of time required to use one tank of gasoline. It is also recommended to change crankcase oil after the first 2 hours of operation.

STOPPING THE ENGINE

Turn the ignition key to the left to the OFF position and remove the key to prevent accidental starting.

OPERATING THE MOWER

Step 1. Set the desired cutting height.

Step 2. Start the engine as outlined on page 9.

Step 3. Select gear and shift.

NOTE

As you become familiar with the operation of the mower you can move the stop lever to a faster position.

Step 4. While holding down the clutch pedal, move the clutch lockout lever forward.

Step 5. Put the gear shift lever into either FORWARD or REVERSE.

NOTE

DO NOT force the gear shift lever! If the lever cannot be moved from NEUTRAL to one of the drive positions, release the clutch pedal slowly, depress it again, and then move the gear shift lever as required.

Step 6. Once the machine is in motion, remove foot from the pedal. The mower will now move ahead or to the rear, and the use of the steering wheel will provide directional control.

Step 7. The mower is brought to a stop by pressing your right foot against the brake pedal and your left foot against the clutch pedal. The drive belt will be disengaged and the brake will be applied.

CAUTION

Gear changing should be done only after the mower has been brought to a full stop. If the mower is not to be used for a long period, place the gear shift lever in NEUTRAL and stop the engine. DO NOT leave the machine on an incline.

OPERATING THE CUTTER BLADE

The cutting blades may be engaged while the mower is moving or standing still. DO NOT engage the cuttting blades abruptly as the sudden belt tension on the pulley may cause the engine to stall.

WARNING

When the blade drive is engaged, keep feet and hands away from the discharge opening and from the blade.

To stop the blades, move the lift and disengagement lever (figure 10) into the DISENGAGED position. This raises the deck and disengages the blades.

NOTE

When the machine is used for other than mowing operations the blade drive should be disengaged.

MAINTENANCE

CRANKCASE OIL

To ensure maximum engine performance, perform the following periodic maintenance:

Oil Check

Check the oil level in the crankcase before each use of the machine and after every five hours of operation. Oil should be kept between the add and full marks on the dipstick.

After the first five hours of operating a new engine, drain the oil (see figure 15) from the crankcase while engine is still hot and refill crankcase with new oil; thereafter change the oil every 25 hours of operation. This procedure ensures for minimum wear of engine parts and provides for virtually trouble-free operation. To change the oil, proceed as follows:

Step 1. With the machine on level ground, place a suitable metal container under the oil drain plug, then remove the drain plug. See figure 15.

Step 2. After the oil has been drained completely from the crankcase, replace the drain plug and tighten.

Step 3. Refill crankcase with 2¼ pints of good quality, type MS, Engine oil into the crankcase. Summer use SAE 30; Winter (Below 40°F) use SAE 5W-20 or SAE 10W.

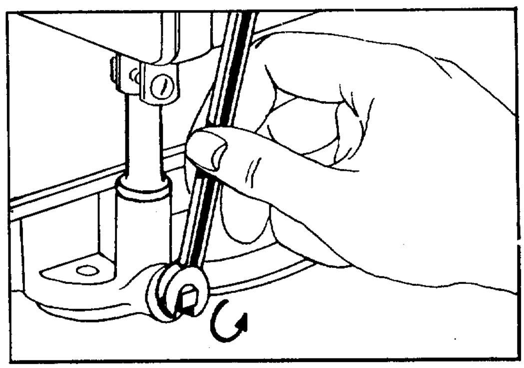


FIGURE 15. OIL DRAIN

LUBRICATION

Lubricate the wheel bearings (2 per wheel) and the upper and lower spindle bearings with SAE 30 oil once a season. See figure 16.

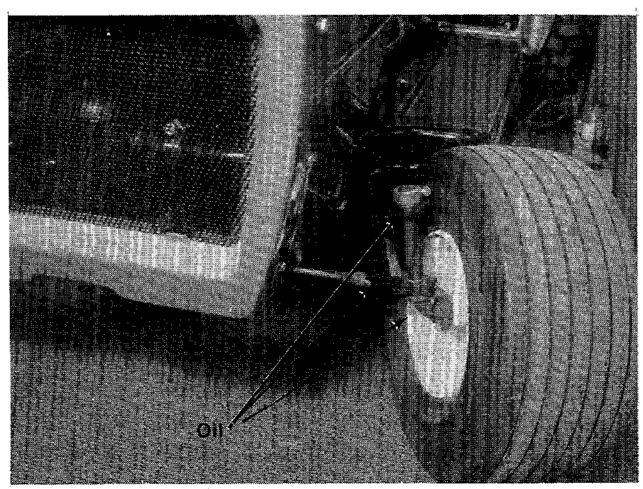


FIGURE 16.

The chain can be lubricated by wiping it with an oily rag.

The differential and transmission are sealed at the factory and require no further lubrication.

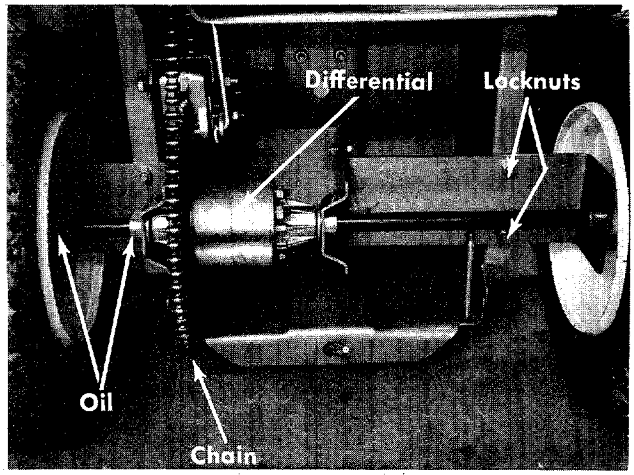


FIGURE 17. REAR AXLE ASSEMBLY

CHAIN ADJUSTMENT

To tighten the chain, loosen two locknuts on each side of rear axle as shown in figure 17.

Tighten the adjusting nuts (figure 18) equally on both sides. Tighten until the chain has ½ inch slack between the sprockets.

The adjusting nuts can be tightened individually to align the axle.

Tighten the 4 locknuts after the adjustment is made.

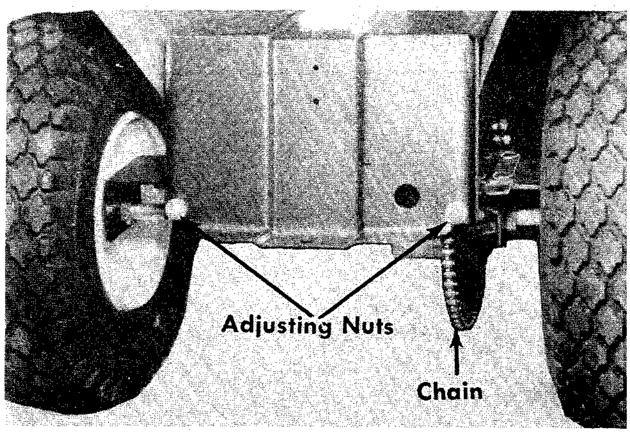


FIGURE 18. CHAIN ADJUSTMENT

AIR CLEANER

Under normal operating conditions, the air cleaner, located on top of the carburetor, must be serviced after every ten hours of use. Under extremely dusty operating conditions the air cleaner must be serviced after every hour of operation. Refer to figure 19.

When assembling the air cleaner, make certain the lip of the foam element extends over edge of the air cleaner body. The foam element will form a protective seal.

Step 1. Remove two screws and lift off complete air cleaner assembly.

Step 2. Remove screen and spacers from foam element.

Step 3. Remove foam element from air cleaner body.

Step 4. a. Wash foam element in kerosene or liquid detergent and water to remove dirt.

b. Wrap foam in cloth and squeeze dry.

c. Saturate foam in SAE 30 engine oil, then squeeze out excess oil.

d. Assemble parts, fasten to carburetor with screw.

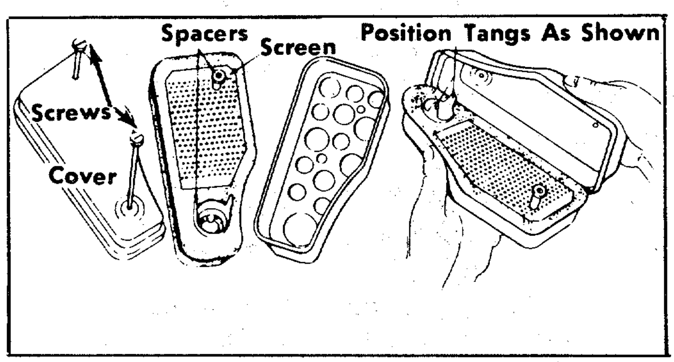


FIGURE 19. AIR CLEANER

CLEANING ENGINE AND BLADE HOUSING

Any fuel or oil spilled on the machine should be wiped off promptly. Grass, leaves, and other dirt must not be left to accumulate around the cooling fins of the engine or on any part of the machine.

Clean the underside of the blade housing after each mowing.

BELTS

Check that belts are free of oil or dirt. Wipe the belts periodically with a clean rag.

NOTE

Belt tension is automatically maintained by the spring on the variable speed bracket on the drive belts and the belt tension on the deck belt is maintained by the two deck springs.

SPARK PLUG

The spark plug gap should be cleaned and reset to a 0.030-inch clearance every   hours of engine operation (See figure 20). Spark plug replacement is recommended at the start of each mowing season; check engine parts list for correct plug type.

NOTE

Whenever the spark plug is removed for cleaning, it is advisable to replace the spark plug gasket with a new gasket.

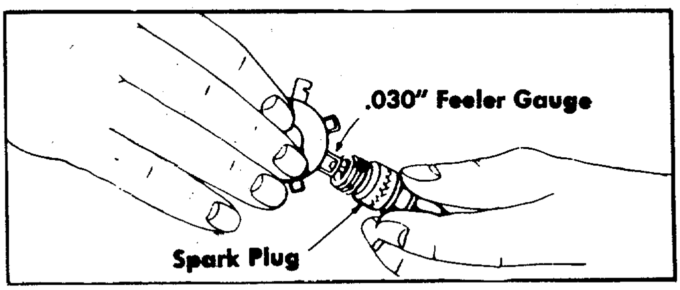


FIGURE 20. SPARK PLUG CLEARANCE

REPLACING BLADE

WARNING

Before beginning work on the cutter blade, remove the spark plug from the cylinder.

Removing and Sharpening Blades. Remove the center bolt and lockwasher. See figure 21. Pull the blade and blade adapter from the blade spindle.

The adapter can be removed from the blade by removing the two adapter bolts, lockwashers and nuts.

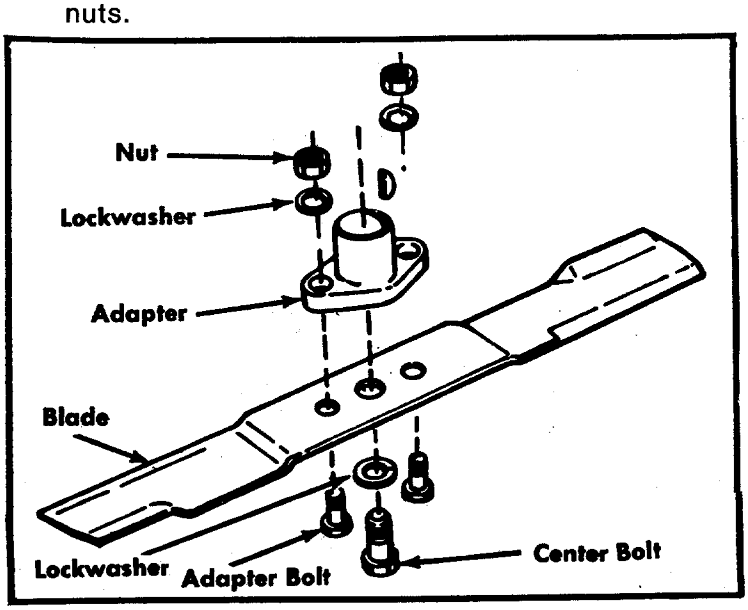


FIGURE 21. BLADE REMOVAL

WHEEL ADJUSTMENT

The caster (forward slant of the king pin) and the camber (tilt of the wheels out at the top) requires no adjustment. Automotive steering principals have been used to determine the caster and camber on the tractor. The front wheels should toe-in 1/8 inch.

To adjust the toe-in follow these steps.

1. Remove the elastic locknut and drop the tie rod end from the wheel bracket. See figure 22.
2. Loosen the hex jam nut on tie rod.
3. Adjust the tie rod assembly for correct toe-in.

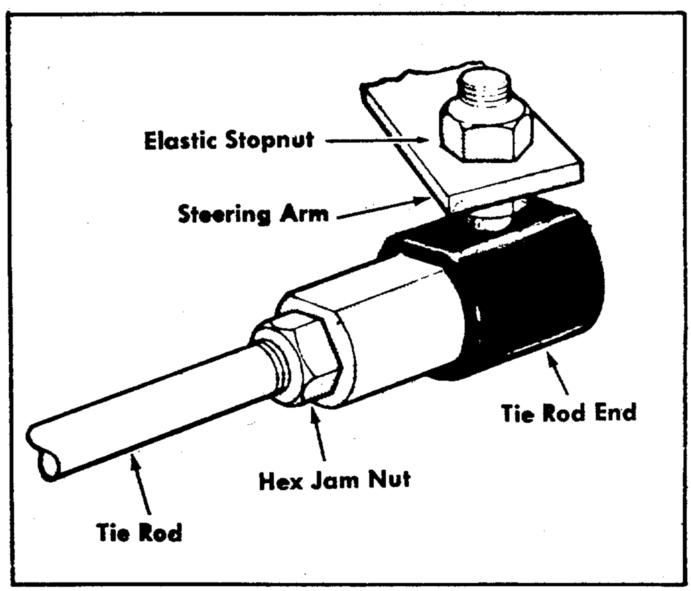


FIGURE 22. TIE ROD ADJUSTMENT

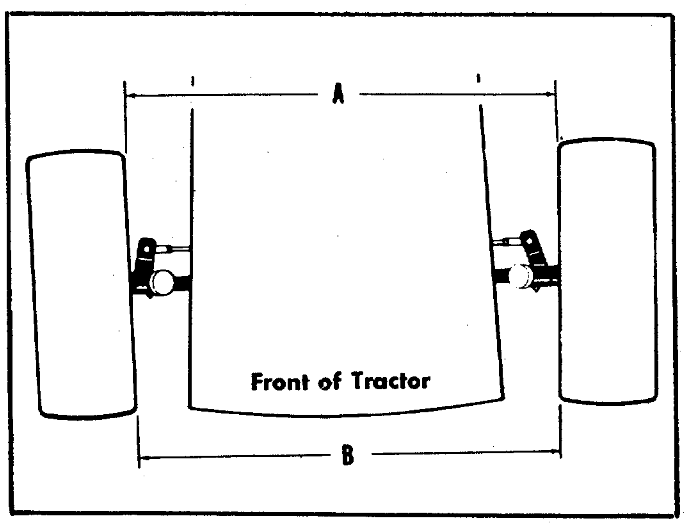


FIGURE 23. TOE-IN DIAGRAM

Dimension "B" should be approximately 1/8" less than Dimension "A". See figure 23.

A.) To increase Dimension "B", screw tie rod into tie rod end.

B.) To decrease Dimension "B", unscrew tie rod from tie rod end.

C.) Reassmble tie rod. Check dimensions. Readjust if necessary.

NOTE

To insure safe operation of your unit, ALL nuts and bolts must be checked periodically for correct tightness.

ADJUSTING CARBURETOR CHOKE

Proper choke adjustment is dependent upon proper adjustment of remote controls on the powered equipment.

To Check Operation of Choke-A-Matic Controls:

Move control lever to CHOKE position. (See figure 10.) The carburetor choke should be closed.

NOTE

The air cleaner can be removed to check the operation of the choke.

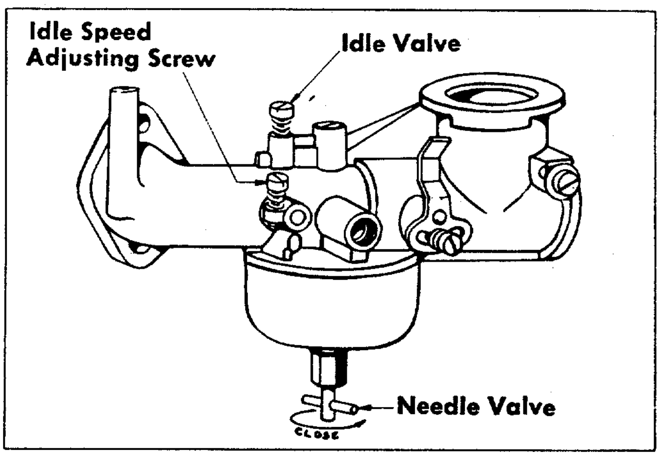


FIGURE 24. CARBURETOR ADJUSTMENT

To Adjust:

Place control lever on equipment in FAST (high speed) position. Loosen control casing clamp screw B. Move control casing A and wire until lever D touches choke operating link at C. Tighten casing clamp screw B. See figure 25.

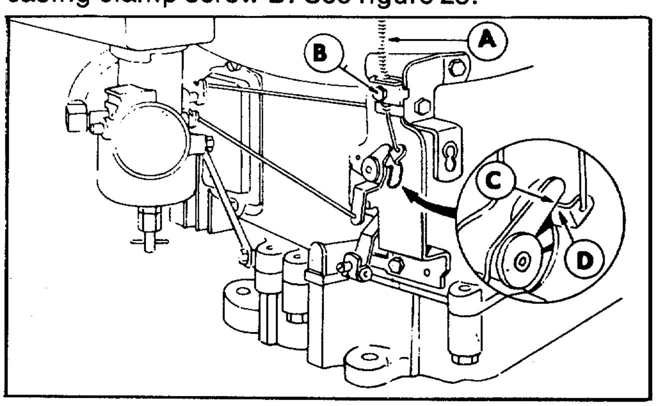


FIGURE 25. CHOKE ADJUSTMENT

PREPARING FOR BELT REMOVAL

1. To prevent gasoline from leaking from the engine, remove the fuel tank cap, place a piece of thin plastic over the neck of the fuel tank and screw on the cap.
2. Disconnect the spark plug wire and ground it against the engine.

NOTE

If the unit is equipped with a battery, continue with step 3.

3. Remove the battery to prevent acid from leaking.

WARNING

Disconnect the negative terminal first and connect last when installing the battery.

MOWING UNIT BELT REPLACEMENT

Step 1. Place the lift lever in the disengaged position. See figure 10.

Step 2. Remove the belt keeper and large bolt on the engine pulley. See figure 26.

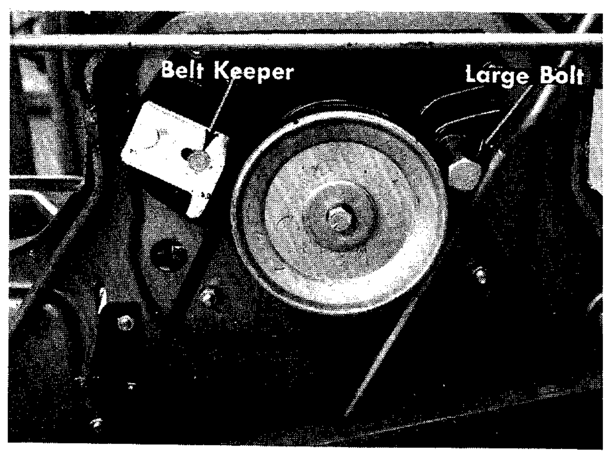


FIGURE 26. BELT KEEPER

Step 3. Unhook the belt from the engine pulley. See figure 27.

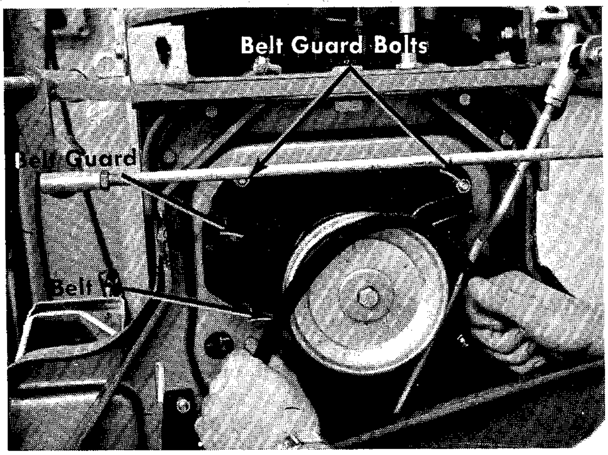


FIGURE 27. REMOVING MOWER BELT

Step 4. Place the lift lever in the engaged position. See figure 10.

Step 5. Unhook the tension springs on both sides of the deck. See figure 27.

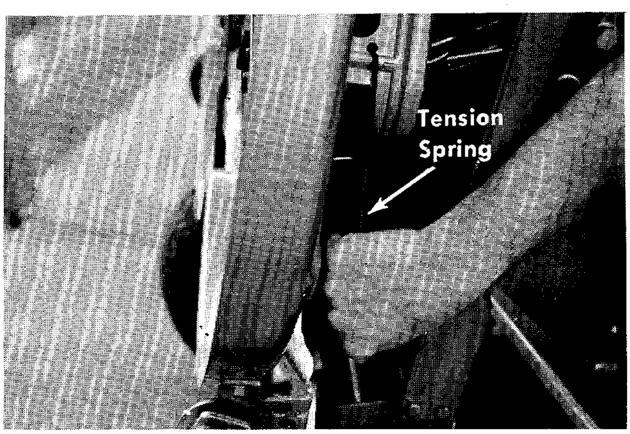


FIGURE 28. REMOVING TENSION SPRINGS

Step 6. Remove the front four deck links from the cutting deck. See figure 29.

Step 7. Remove the belt guards from both deck pulleys. See figure 29.

Step 8. Remove and replace the belt and reassemble.

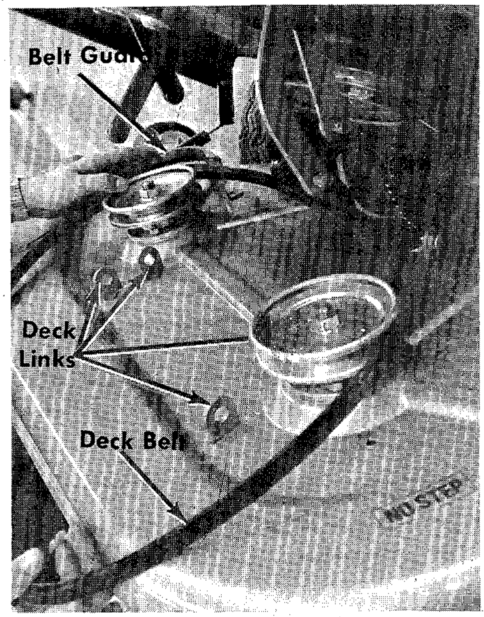


FIGURE 29. DECK LINKS

TRANSMISSION BELTS REMOVAL

Step 1. Place the lift lever in the disengaged position. See figure 10.

Step 2. Remove the belt keeper and large bolt on the engine pulley. See figure 26.

Step 3. Unhook the belt from the engine pulley. See figure 27.

Step 4. Place the lift lever in the engaged position. See figure 10.

Step 5. Unhook the tension springs on both sides of the deck. See figure 28.

Step 6. Remove the front four deck links from the cutting deck. See figure 29.

Step 7. Tip the deck down as shown in figure 29.

NOTE

Leave the belt attached to the deck pulleys unless you want to replace it.

Step 8. Remove the engine belt guard by removing the two front engine mounting bolts. See figure 30.

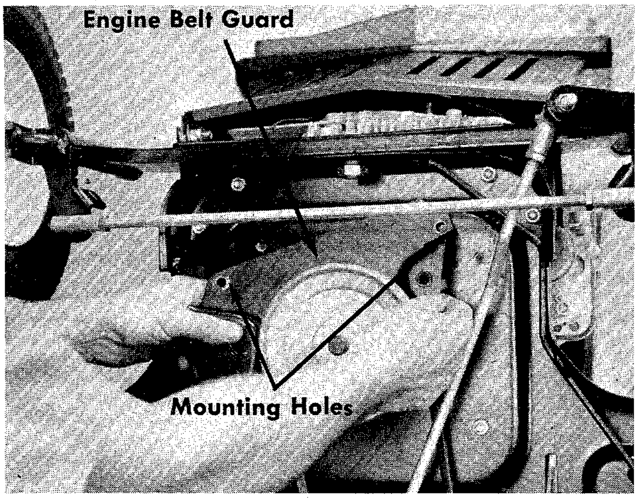


FIGURE 30. BELT GUARD REMOVAL

NOTE

By working between the frame and the deck, it is possible to remove and replace the deck belt without removing the deck, however, the working space is limited.

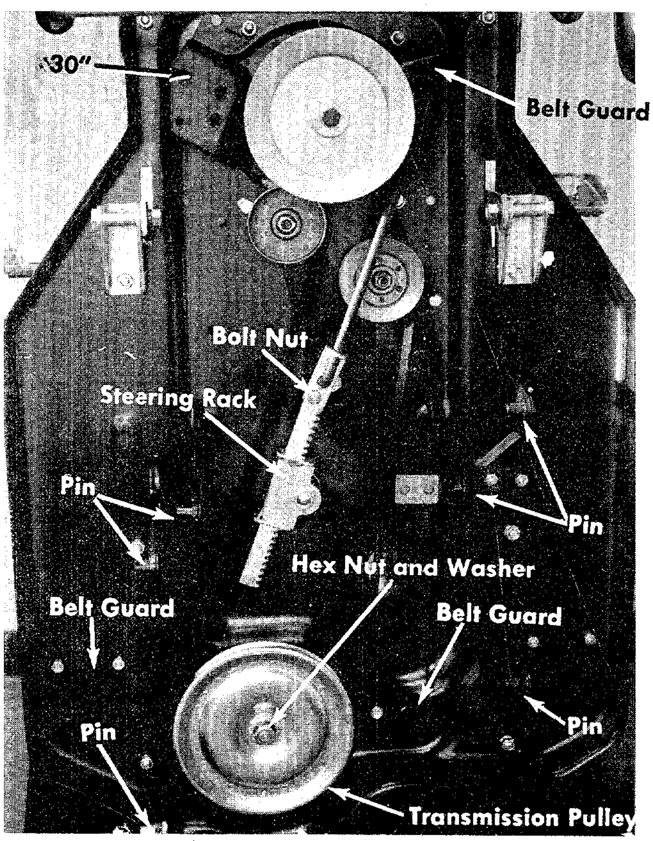


FIGURE 31. BOTTOM VIEW

Step 9. **Removing the transmision Belt.** See figure 31.

a. Remove the entire belt guard from the engine pulley by removing the two front engine bolts. See figure 30.
b. Remove the transmisson pulley by removing the hex nut and washer. See figure 31.
c. Remove the bolt and nut from the steering rack and remove the belt.
d. Reassemble in reverse order with the new belt.

OFF-SEASON STORAGE

If the machine is to be inoperative for a period longer than 30 days, the following precautions are recommended:

Step 1. Working outdoors, drain all fuel from the fuel tank. Use a clean dry cloth to absorb the small amount of fuel remaining in the tank, then run the engine until all fuel in carburetor is exhausted.

WARNING

Do not drain fuel while smoking, or if near an open fire.

Step 2. Drain all the oil from the crankcase (this should be done after the engine has been operated and is still warm) and refill the crankcase with clean new oil.

Step 3. Disconnect the spark plug wire and remove the spark plug from the cylinder. Pour about six drops of engine oil into the cylinder, and then pull the recoil starter several times to spread the oil on the cylinder wall. Replace the spark plug, but DO NOT connect the wire.

Step 4. Clean the engine and the entire mower thoroughly.

Step 5. Lubricate all lubrication points indicated in figures 16 and 17 then wipe the entire machine with an oiled rag in order to protect the surfaces.

TROUBLE SHOOTING CHART FOR RECOIL START MODELS

CAUTION: ALWAYS DISCONNECT SPARK PLUG BEFORE ATTEMPTING ANY REMEDY.

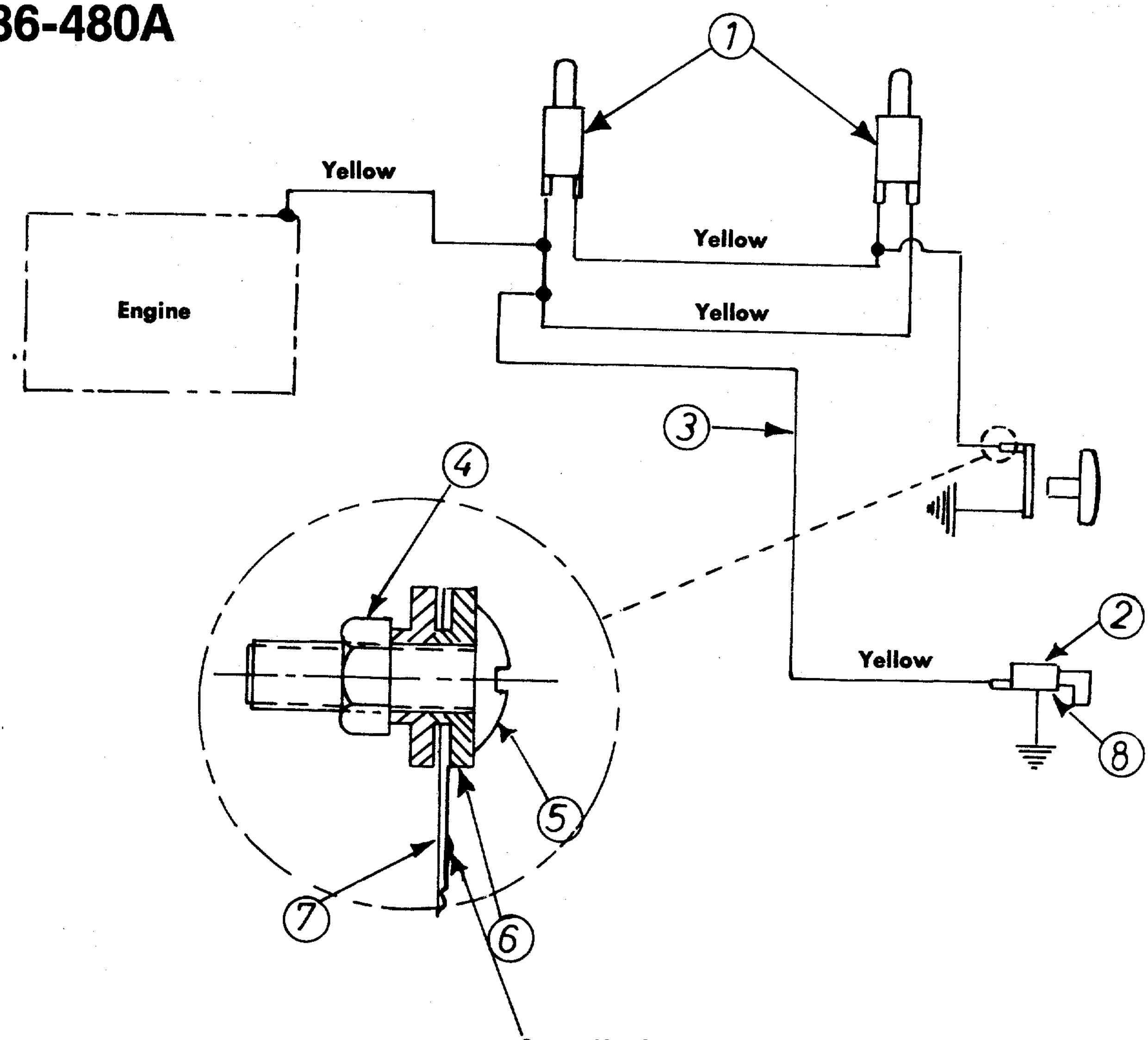
TROUBLE	LOOK FOR	REMEDY
Engine fails to start.	Safety System	If the engine will not start be sure the clutch control is disengaged; blade controls disengaged, the throttle control is set and the key is turned on. A. Disconnect the yellow wire from the engine. This comes from the ignition switch. B. If the engine fails to start the problem is with the engine, not the safety system. C. If the engine starts, the problem is with the safety system. Check the yellow wire for a ground. D. Check the operation of the switch behind the recoil starter handle. E. If the engine stops when the clutch or blade is engaged, the recoil handle is not pushed into the receptacle and twisted a quarter turn.
	Blocked fuel line or empty gas tank.	Clean fuel line; check fuel supply. Also check fuel shut-off valve.
	Defective spark plug.	Spark plug lead wire disconnected. Faulty spark plug—spark should jump gap between control electrode and side electrode. If spark does not jump, replace spark plug. NOTE: Use insulated pliers to hold the spark plug wire.
	Throttle setting.	Throttle control lever not in the starting position.
	Loose connections	Spark plug wire loose.
Hard starting or loss of power.	Dirty air cleaner.	Remove air cleaner and clean as outlined in **Engine Manual.**
	Carburetor improperly adjusted.	Review paragraph **Carburetor Adjustment.**
Excessive vibration.	Bent or damaged blade spindle.	Stop engine immediately; tighten all bolts and make all necessary repairs. If vibration continues, have the unit serviced by a competent repairman.
Unit fails to discharge grass.	Discharge chute clogged.	Clean discharge chute and inside of deck.
	Foreign object lodged in deck.	Remove object from deck. See CAUTION following step 1 in paragraph **Operation.**
Engine overheats.	Obstructions in air passages.	Remove any obstruction from air passages in shroud. Grass and dirt in engine shroud. Clean cooling fins.
	Oil level.	Fill crankcase to proper oil level.

TROUBLE SHOOTING CHART FOR ELECTRIC START MODEL

TROUBLE	LOOK FOR	REMEDY
Engine fails to start.	Safety System	A. Check for a blown fuse in the wire leading from the positive terminal of the battery. B. Before checking the safety system further, be sure the clutch control and the blade control are disengaged; only the starting system is being checked. Therefore remove the spark plug lead and ground it to prevent the engine from starting. C. Attach a wire (minimum 18 gauge) to the positive terminal of the battery and touch the other end to the small terminal (coil primary) of the solenoid. If the engine cranks, the problem is in the safety system. D. Check for continuity from the battery to the solenoid. NOTE: The positive terminal of the battery should have a large cable (#8 guage) and a small wire (#18 gauge) attached to it. E. Check all wires and cable for tightness. F. Use a #8 gauge wire and jump between the two large terminals of the solenoid. If the unit starts, replace the solenoid. G. If the unit fails to start after following the above procedure the problem is probably in the starting motor of the engine.
	Blocked fuel line or empty gas tank.	Clean fuel line; check fuel supply. Also check fuel shut-off valve.
	Defective spark plug.	Spark plug lead wire disconnected. Faulty spark plug—spark should jump gap between control electrode and side electrode. If spark does not jump, replace spark plug. NOTE: Use insulated pliers to hold the spark plug wire.
	Throttle setting.	Throttle control lever not in the starting position.
	Loose connections	Spark plug wire loose.
Hard starting or loss of power.	Dirty air cleaner.	Remove air cleaner and clean as outlined in **Engine Manual.**
	Carburetor improperly adjusted.	Review paragraph **Carburetor Adjustment.**
Excessive vibration.	Bent or damaged blade spindle.	Stop engine immediately; tighten all bolts and make all necessary repairs. If vibration continues, have the unit serviced by a competent repairman.
Unit fails to discharge grass.	Discharge chute clogged.	Clean discharge chute and inside of deck.
	Foreign object lodged in deck.	Remove object from deck. See CAUTION following step 1 in paragraph **Operation.**
Engine overheats.	Obstructions in air passages.	Remove any obstruction from air passages in shroud. Grass and dirt in engine shroud. Clean cooling fins.
	Oil level.	Fill crankcase to proper oil level.

NOTES

136-480A

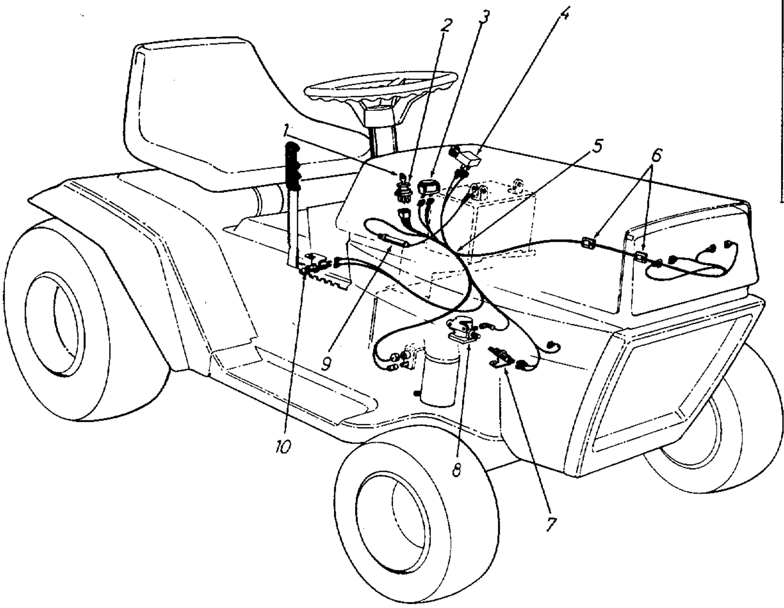


SCHEMATIC FOR ELECTRICAL SYSTEM

PARTS LIST FOR MODEL 136-480A ONLY

REF. NO.	PART NO.	DESCRIPTION	NEW PART
1	725-0269	Safety Switch Norm Closed—Red	
2	725-0266	Magneto Igntion Switch w/Nut	
3	~~725-0272~~ 725-0521	Wire Harness	
4	712-0121	Hex Nut #10-24	
5	710-0425	Truss Mach. Scr. #10-24 x .62	
6	736-0338	Fiber Washer	
7	732-0257	Switch Spring	
8	736-0225	Internal L-wash. 5/8 I.D.	

136-485A

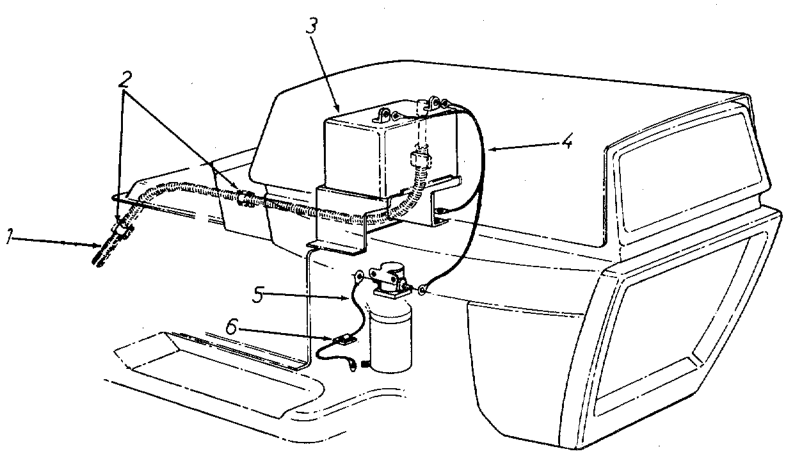


PARTS LIST FOR MODEL 136-485A ONLY

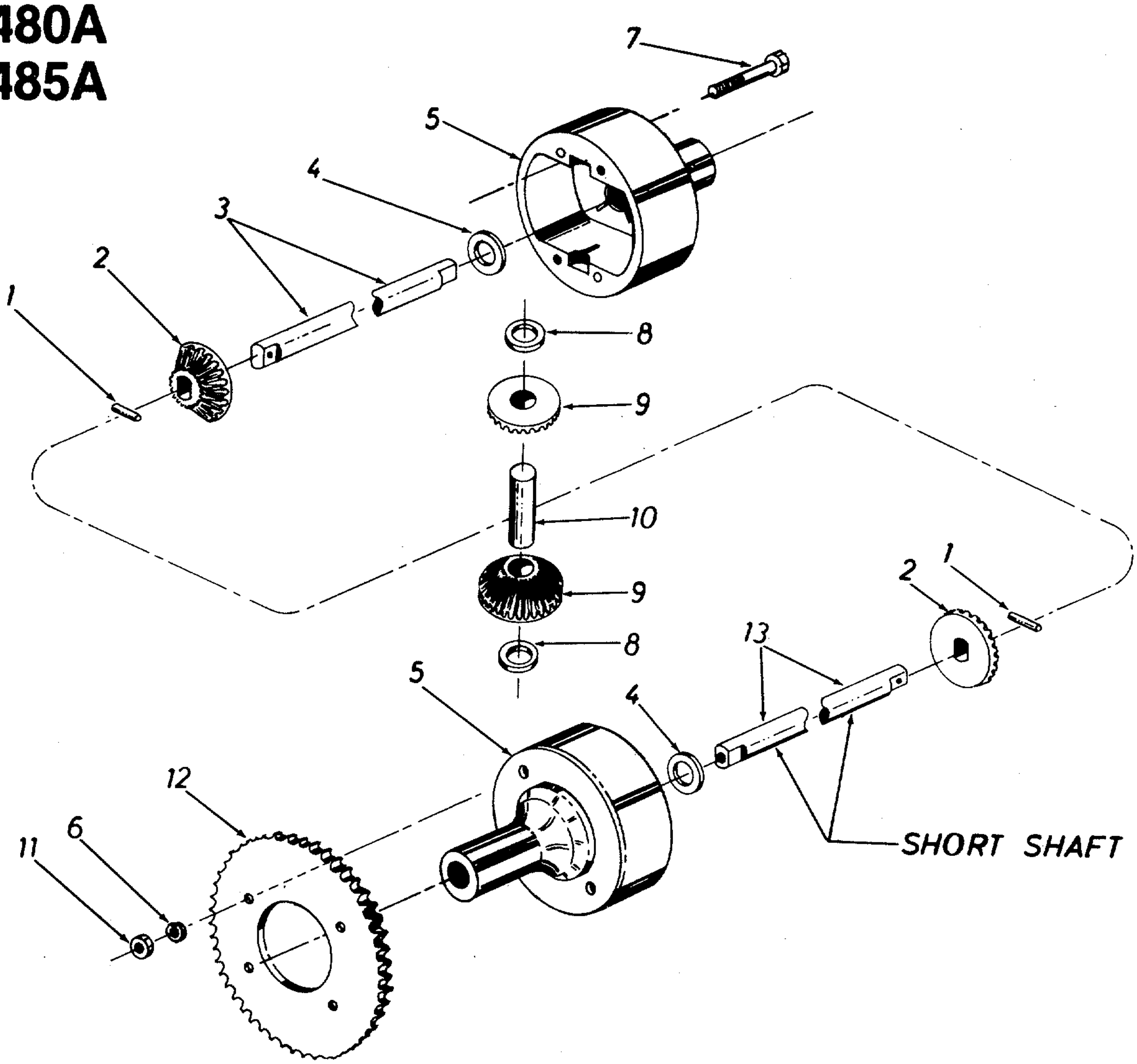
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	725-0201		Ignition Key	
2	725-0267		Ignition Switch	
3	725-0119		Ammeter	
4	725-0202		Headlight Switch	
5	725-0486		Wire Harness	N
6	725-0480		Vinyl Sealing Tape	N
7	725-0268		Safety Switch	
8	725-0270		Solenoid	
9	725-0298		Fuse 7½ Amp. ¼ Dia. x 1.25 Lg.	
10	725-0268		Safety Switch	

PARTS LIST FOR MODEL 136-485A ONLY

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	731-0333		Convoluted Conduit	
2	726-0141		Mtg. Clamps 3/8 I.D.	
3	725-0453		Battery 12 V.—Manifold Vented	
4	725-~~0453~~ 503		Battery Cable Harness	N
5	725-~~0503~~ 12)		Electric Wire	
6	725-0480		Vinyl Sealing Tape	N



136-480A
136-485A



PARTS LIST FOR DIFFERENTIAL ASSEMBLY 717-0330

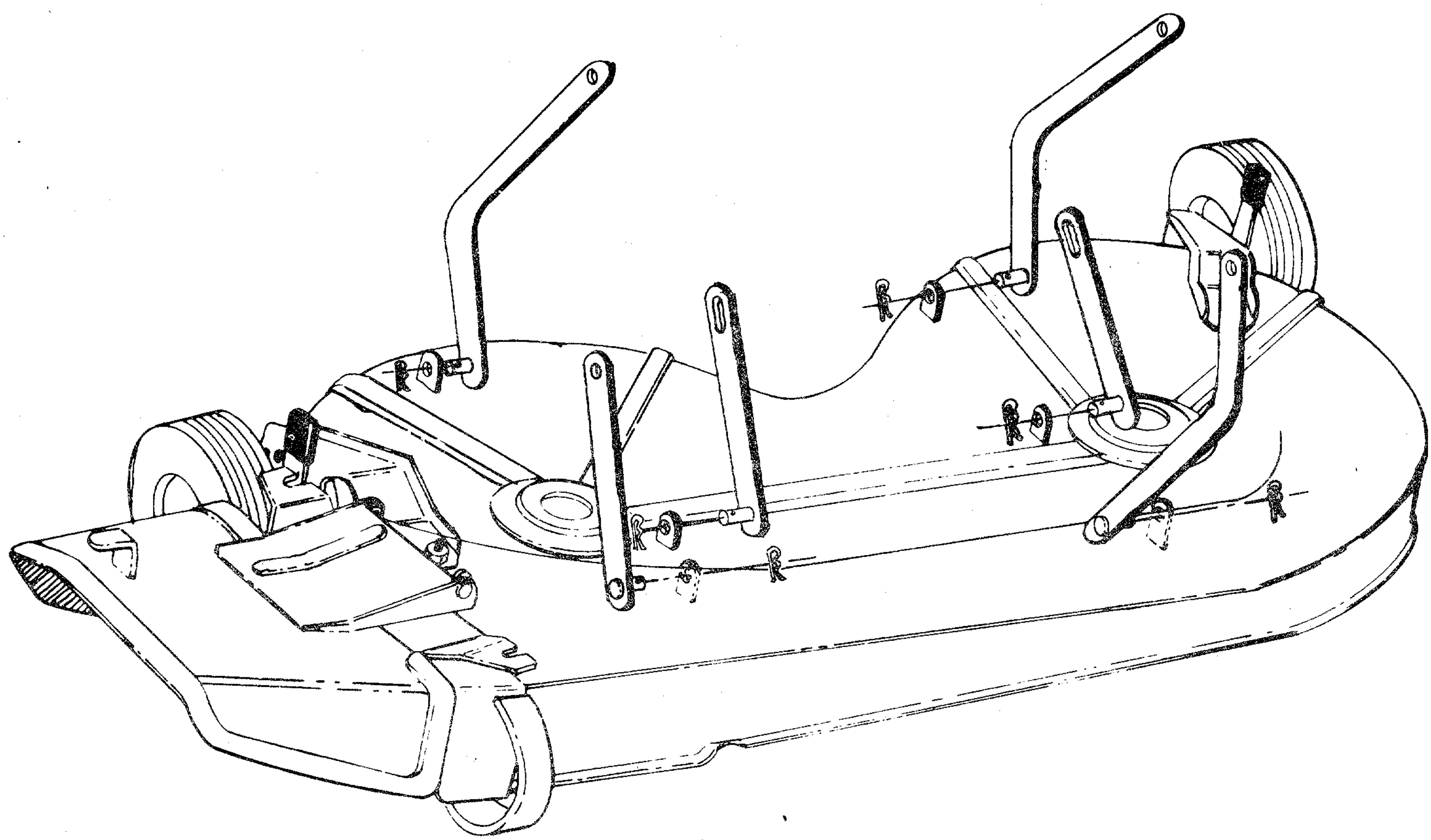
Ref. No.	Part No.	Qty. Req'd.	Description	New Part
1	715-0247	2	Spring Pin Spir. 3/16" Dia. x 1.00" Lg.	
2	748-0185	2	Gear—Double "D" Hole	
3	738-0249	1	Shaft—Long ~~16.89~~" Lg. 17.01"	
4	736-0188	2	Fl-Wash. .760 I.D. x 1.49 O.D.	
5	717-0341	2	Housing Half	N
6	736-0119	2	L-Wash. 5/16" Scr.*	
7	710-0363	2	Hex Scr. 5/16-24 x 4.00" Lg.*	
8	736-0187	2	Fl-Wash. .640 I.D. x 1.24 O.D.	
9	748-0158	2	Gear—Round Hole	
10	711-0276	1	Drive Pin	
11	712-0237	2	Hex Cent. L-Nut 5/16-24 Thd.	
12	09133	1	Sprocket—60 Tooth	
13	738-0250	1	Shaft—Short ~~9.53~~" Lg. 9.65"	
	737-0120	2 oz.	Grease—High Temp. 450°F.	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

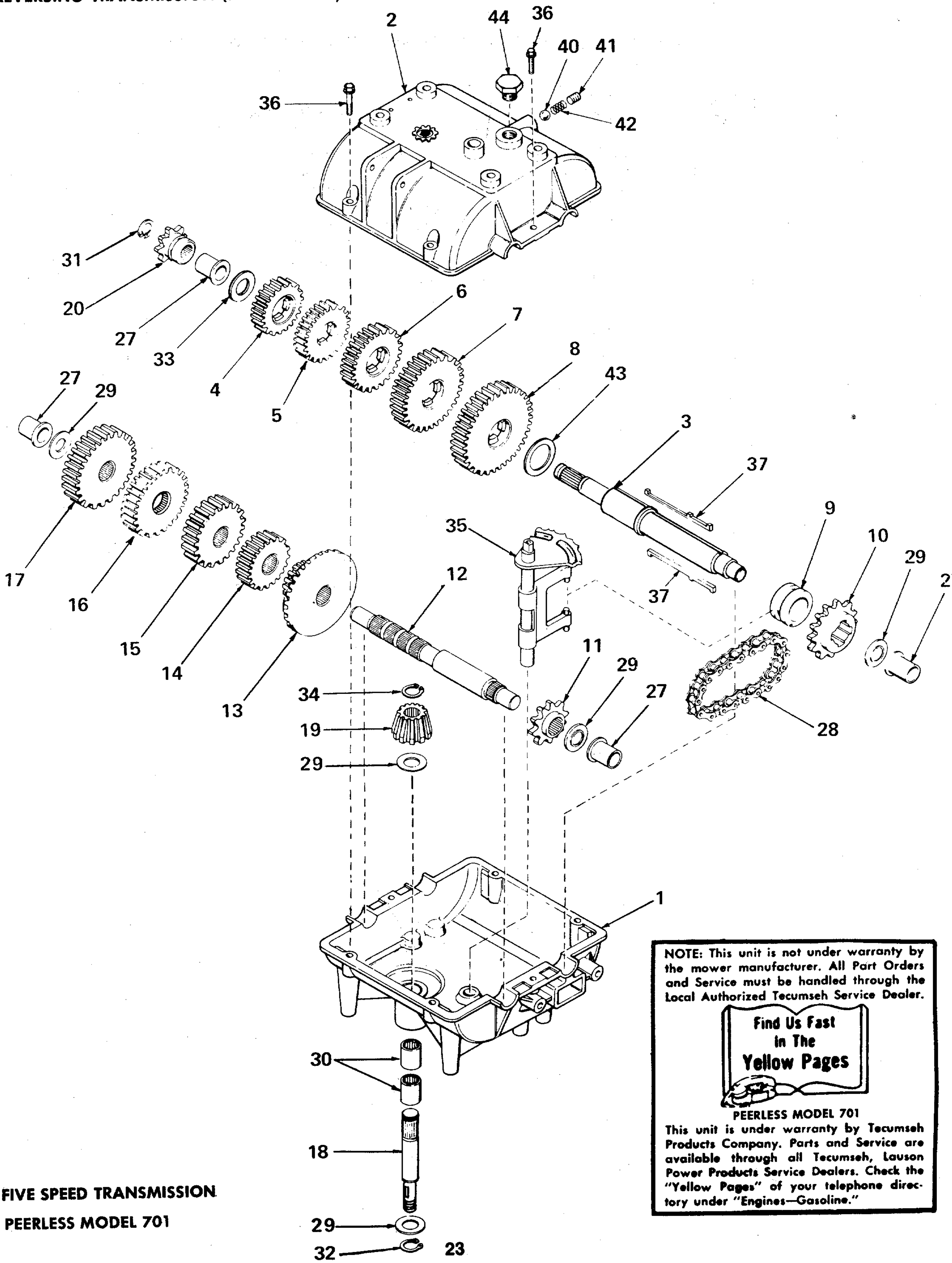
DECK LINKAGE

NOTE

Refer to illustration below for proper deck link hook-up. If the deck is removed for any reason use the illustraton below for correct assembly.



REVERSING TRANSMISSION (PEERLESS 701)



NOTE: This unit is not under warranty by the mower manufacturer. All Part Orders and Service must be handled through the Local Authorized Tecumseh Service Dealer.

PEERLESS MODEL 701

This unit is under warranty by Tecumseh Products Company. Parts and Service are available through all Tecumseh, Lauson Power Products Service Dealers. Check the "Yellow Pages" of your telephone directory under "Engines—Gasoline."

FIVE SPEED TRANSMISSION

PEERLESS MODEL 701

PARTS LIST FOR FIVE SPEED TRANSMISSION PEERLESS MODEL 701

REF. NO.	PART NO.	DESCRIPTION
1	PE-770061	Case, Transmission
2	PE-772070	Cover, Transmission
3	PE-776164	Shaft, Output and Brake
4	PE-778121	Gear, Spur (20 teeth)
5	PE-778122	Gear, Spur (22 teeth)
6	PE-778123	Gear, Spur (25 teeth)
7	PE-778124	Gear, Spur (30 teeth)
8	PE-778125	Gear, Spur (35 teeth)
9	PE-784266	Collar, Shift
10	PE-786060	Sprocket (14 teeth)
11	PE-786061	Sprocket (10 teeth)
12	PE-776134	Shaft, Counter
13	PE-778109	Gear, Bevel (42 tooth and 15 tooth spur gear)
14	PE-778126	Gear, Spur (20 teeth)
15	PE-778127	Gear, Spur (25 teeth)
16	PE-778128	Gear, Spur (28 teeth)
17	PE-778129	Gear, Spur (30 teeth)
18	PE-776140	Shaft, Input
19	PE-778113	Bevel Pinion, Input
20	PE-786049	Sprocket (8 teeth)
27	PE-780105	Bushing, Flanged
28	PE-786062	Chain, Roller (No. 41 chain, 22 links)
29	PE-780072	Race, Thrust
30	PE-780106	Bearing, Needle
31	PE-792072	Ring, Retaining
32	PE-792035	Ring, Retaining
33	PE-780109	Washer
34	PE-788040	Ring, Retaining
35	PE-784271	Rod and Fork Ass'y., Shift
36	PE-792073	Scr., ¼-20 x 1¼ hex hd. tap-tite
37	PE-792089	Key
40	PE-792077	Ball, 5/16" Steel
41	PE-792078	Screw, ⅜-16 x ⅜ set
42	PE-792079	Spring
43	PE-780108	Washer, Thrust
44	PE-792074	Plug

NOTE: This unit is not under warranty by the mower manufacturer. All Part Orders and Service must be handled through the Local Authorized Tecumseh Service Dealer.

Find Us Fast In The Yellow Pages

PEERLESS MODEL 701

This unit is under warranty by Tecumseh Products Company. Parts and Service are available through all Tecumseh, Lauson Power Products Service Dealers. Check the "Yellow Pages" of your telephone directory under "Engines—Gasoline."

WHEEL CHART

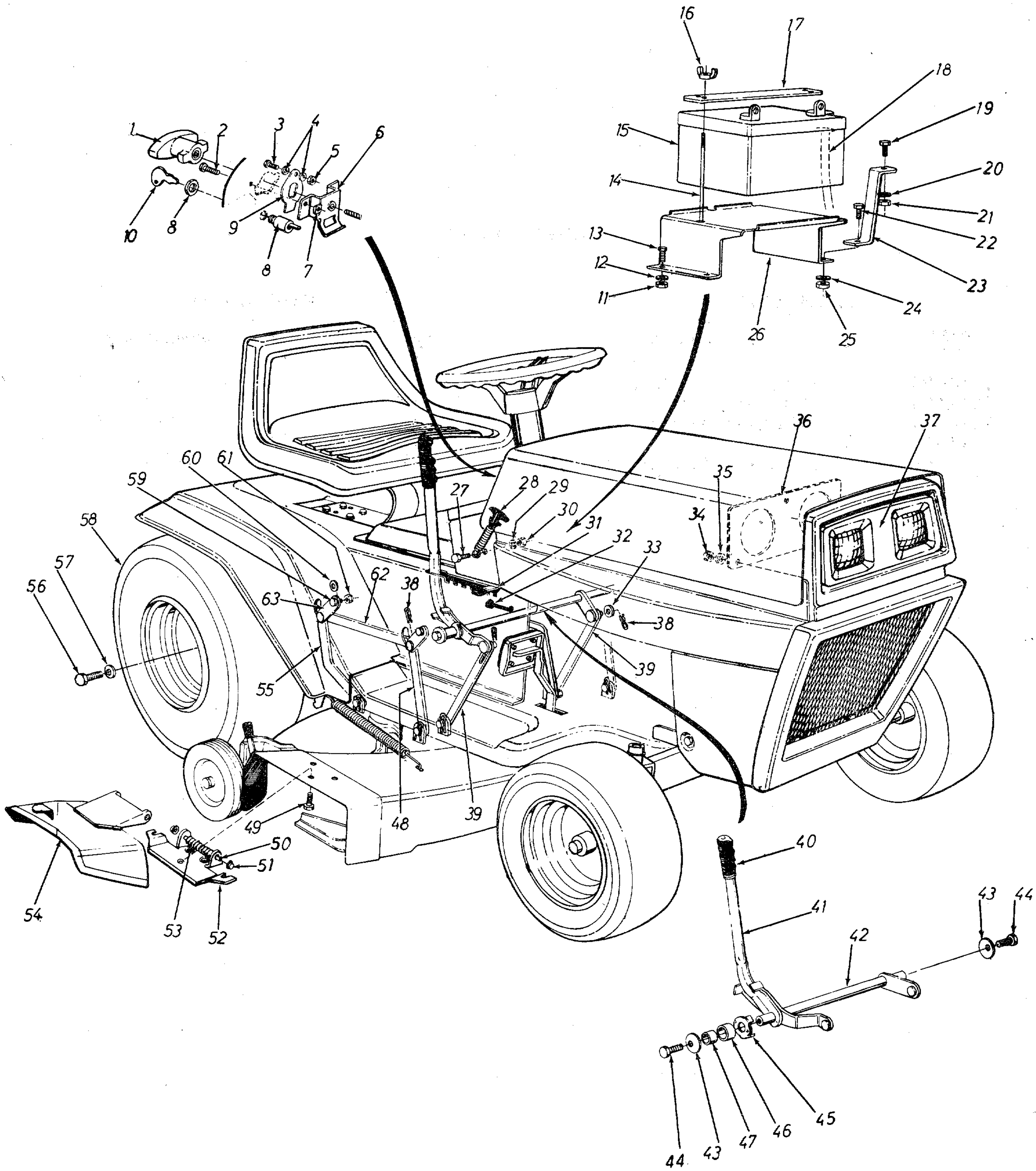
FRONT WHEEL

PART NO.	DESCRIPTION
734-0494	Wheel Ass'y.—Comp.
734-0520	Rim Ass'y. Only
734-0495	Tire Only 13 x 5.00
734-0255	Air Valve
734-0249	Inner Tube (Service Only)

REAR WHEEL

PART NO.	DESCRIPTION
734-0592	Wheel Ass'y.—Comp.
734-0594	Rim Ass'y. Only
734-0294	Tire Only 18 x [illegible]0-8
734-0255	Air Valve
734-0310	Inner Tube (Servi[illegible]

136-480A
136-485A



RIGHT HAND VIEW

PARTS LIST FOR MODEL 136-480A AND 136-485A

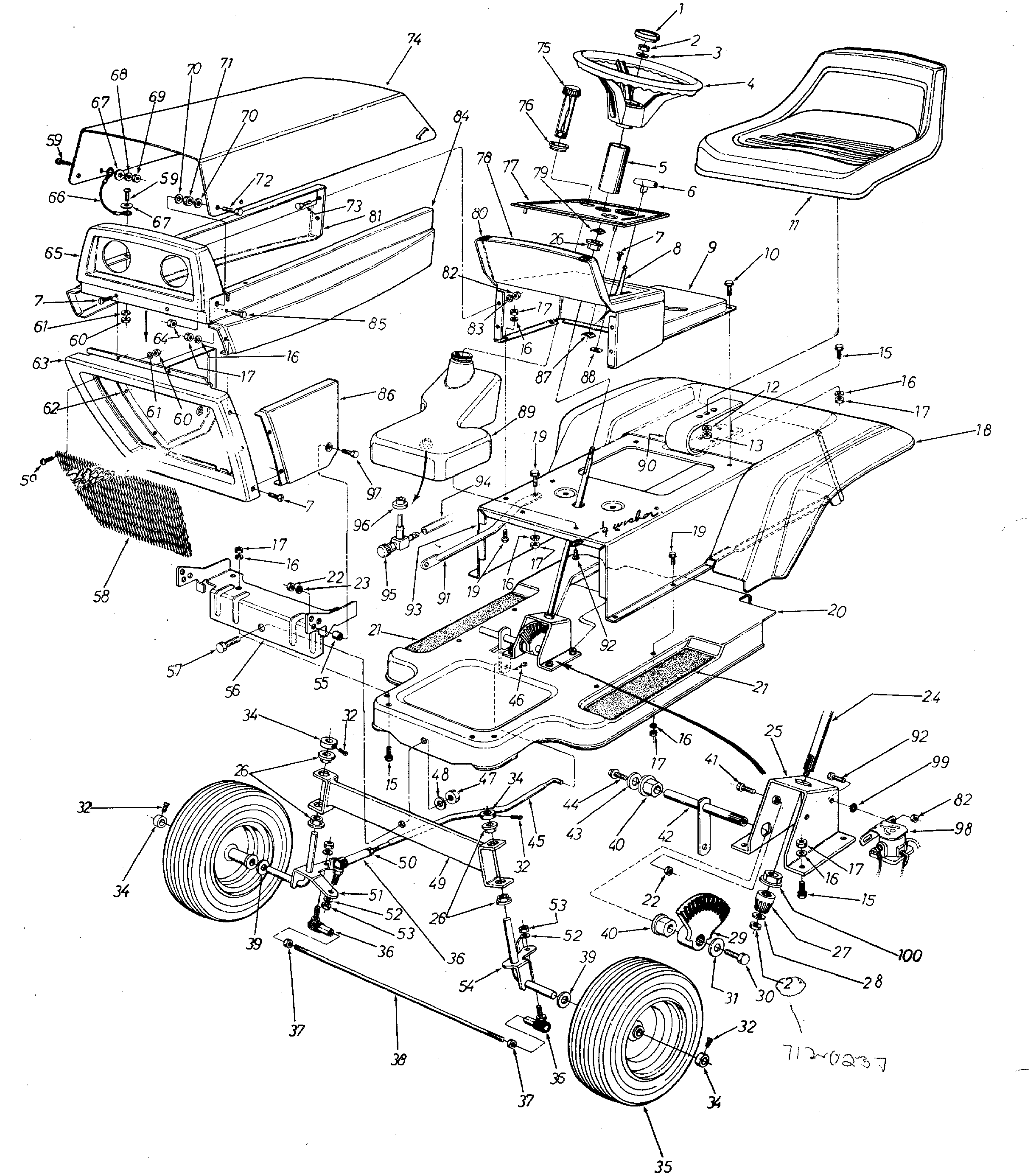
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	11263		Plastic Handle (480A only)	
2	710-0351		Truss Mach. Scr. #10 x .50" Lg. (480A only)	
3	710-0425		Truss Mach. Scr. #10-24 x .62" Lg. (480A only)	
4	736-0338		Fiber Wash. (480A only)	
5	712-0121		Hex Nut #10-24 Thd.* (480A only)	
6	11053		Switch Brkt. Ass'y. (480A only)	
7	712-0147		Speed Nut #10-24 U-Type (480A only)	
8	725-0266		Ignition Switch (480A only)	
9	732-0257		Switch Spring (480A only)	
10	725-0128		Ignition Key (480A only)	
11	712-0287		Hex Nut ¼-20 Thd.* (485A only)	
12	736-0329		L-Wash. ¼" Scr.* (485A only)	
13	710-0258		Hex Scr ¼-20 x .62" Lg.* (485A only)	
14	711-0222		Battery Hold Down Rod (485A only)	
15	725-0453		Battery 12-volt Manifold Vented (485A only)	
16	712-0113		Wing Nut Solid ¼-20 Thd. (485A only)	
17	12614		Battery Hold Down (485A only)	
18	731-0333		Convoluted Conduit (485A only)	
19	710-0286		Truss Mach. Scr. ¼-20 x .50" Lg. (485A only)	
20	736-0329		L-Wash. ¼" Scr.* (485A only)	
21	712-0287 (372)		Hex Nut ¼-20 Thd.* (485A only)	
22	710-0258		Hex Scr. ¼-20 x .62" Lg.* (485A only)	
23	12811		Battery Brkt. Brace (485A only)	N
24	736-0329		L-Wash. ¼" Scr.* (485A only)	
25	712-0287		Hex Nut ¼-20 Thd.* (485A only)	
26	12747		Battery Brkt. (485A only)	N
27	710-0289		Hex Scr. ¼-20 x .50" Lg.*	
28	723-0296		Hood Latch Ass'y.	
29	736-0329		L-Wash. ¼" Scr.*	
30	712-0287		Hex Nut ¼-20 Thd.*	
31	11027		Handle Stop Brkt. Ass'y.	
32	726-0121		Push Cap ¼" Dia. Black	
33	736-0192		Fl-Wash. .531 I.D. x 1.13 O.D.	
34	712-0287		Hex Nut ¼-20 Thd.* (485A only)	
35	736-0329		L-Wash. ¼" Scr.* (485A only)	
36	12788		Head Lamp Bezel (485A only)	N
37	12787		Head Lamp Retainer (485A only)	N
	12781		Head Lamp Bezel (480A only)	N
38	714-0101		Inter. Cot. Pin ½" Dia.	
39	10346		Lockout Link Ass'y.	
40	720-0157		Grip	
41	749-0212		Lift Handle	
42	11032		Lift Handle Brkt. Ass'y.	
43	736-0219		Bell.-Wash. .400 I.D. x 1.130 O.D.	
44	710-0201		Hex Scr. 3/8-16 x .62" Lg.*	
45	11029		Handle Pivot Brkt.	
46	735-0180		Rubber Wash. .75 I.D. x 1.25 O.D.	
47	748-0201		Spacer .635 I.D. x .88 O.D. x .57	
48	10904		Deck Link Ass'y.	
49	710-0195		Hex Scr. ¼-28 x .62" Lg.*	
50	711-0577		Pivot Pin	
51	726-0106		Push-on Flange Palnut	
52	11399		Adapter Plate Ass'y.	
53	732-0261		Torsion Spring	
54	11574		Chute Cover Ass'y.	
55	10349		Deck Link Ass'y.	
56	710-0627		Hex Scr. 5/16-24 x .75" Lg.*	
57	736-0242		Bell.-Wash. .345 I.D. x .88 O.D.	
58	734-0592		Rear Wheel Ass'y.—Comp. 18 x 6.50-8	
59	738-0140		Shld. Scr. .437 Dia. x .180	
60	736-0264		Fl-Wash. .344 I.D. x .62 O.D.	
61	712-0267		Hex Nut 5/16-18 Thd.*	
62	09735		Connecting Rod 3/16 x 1 x 12.5" Lg.	
63	09721		Pivot Link Ass'y.	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

(462—Red Flake)

When ordering parts if color or finish is important, use color code shown at left. (e.g. Red Flake Finish—11839 (462).)

136-480A
136-485A



PARTS LIST FOR MODEL 136-480A AND 136-485A

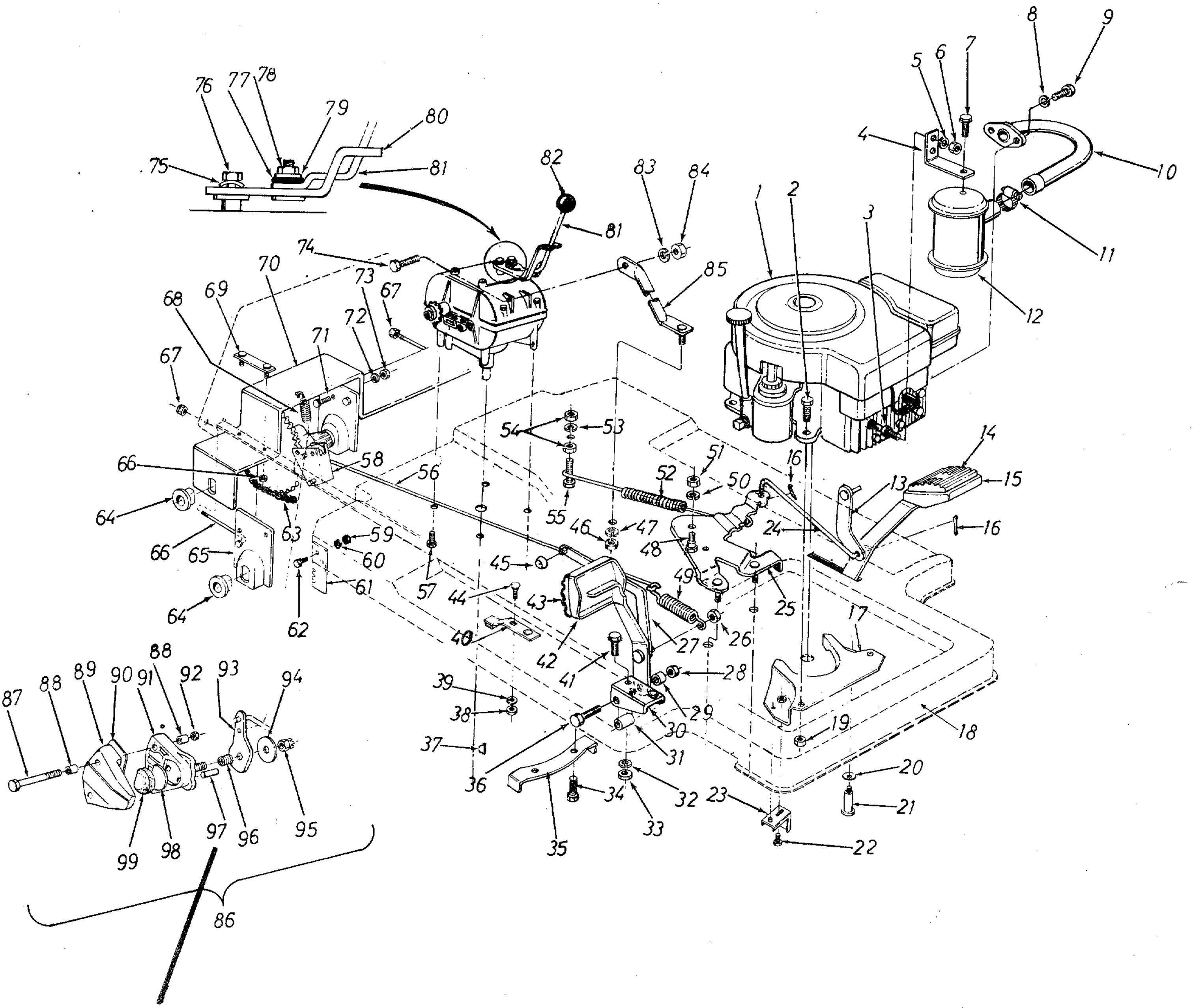
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	731-0220		Steering Wheel Cap	
2	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	
3	736-0242		Bell.-Wash. .345 I.D. x .88 O.D.	
4	731-0219		Steering Wheel	
5	750-0319		Steering Tube	N
6	722-0115		Knob—Throttle Control	
7	710-0351		Truss Mach. Scr. #10 x .50" Lg.*	
8	746-0160		Throttle Control Ass'y. Comp.	
9	12790		Upper Frame Cover	N
10	710-0599		Hex C-Tap Scr. ¼-20 x .50" Lg.	
11	757-0264		Seat Assembly	
12	736-0921		L-Wash. ½" Scr.*	
13	712-0206		Hex Nut ½-13 Thd.*	
15	710-0198		Hex Sems Scr. 5/16-18 x .75" Lg.*	
16	736-0119		L-Wash. 5/16" Scr.*	
17	712-0267		Hex Nut 5/16-18 Thd.*	
18	11839		Rear Fender	
19	710-0259		Hex Sems Scr. 5/16-18 x .62" Lg.*	
20	11090		Frame Assembly	
21	723-0241		Foot Pad 15.75 x 4.00"	
22	712-0798		Hex Nut 3/8-16 Thd.*	
23	736-0105		Bell.-Wash. .400 I.D. x .88 O.D.	
24	738-0317		Steering Shaft	N
25	12748		Steering Gear Support	N
26	748-0227		Hex Flange Bearing .630 I.D.	
27	748-0237		Pinion Gear	
28	736-0264		Fl-Wash. .344 I.D. x .62 O.D.	
29	748-0236		Side Gear	N
30	710-0180		Hex Scr. 3/8-24 x .75" Lg.*	
31	736-0133		Fl-Wash. .406 I.D. x 1.25 O.D.	
32	710-0494		Sq. Hd. Set Scr. 5/16-18 x .38 Cup	
34	711-0169		Collar 5/8" I.D.	
35	734-0494		Front Wheel Ass'y.—Comp. 13 x 5.00	
36	723-0156		Ball Joint Ass'y. 3/8-24 Thd.	
37	712-0711		Hex Jam Nut 3/8-24 Thd.	
38	711-0613		Tie Rod	
39	736-0156		Fl-Wash. .635 I.D. x 1.20 O.D.	
40	748-0151		Flange Brg. w/Flats .75 I.D.	
41	710-0670		Hex Nylon Scr. 3/8-16 x 1.25" Lg.	N
42	12749		Steering Arm Shaft Ass'y.	N
43	736-0133		Fl-Wash. .406 I.D. x 1.25 O.D.	
44	710-0180		Hex Scr. 3/8-24 x .75" Lg.*	
45	747-0186		Steering Rod	N
46	714-0507		Cotter Pin 3/32" Dia. x .75" Lg.*	
47	712-0923		Hex Cent. L-Nut 5/8-16 Thd.	
48	736-0158		L-Wash. 5/8" Scr.*	
49	12406		Front Pivot Bar Ass'y.	
50	712-0711		Hex Jam Nut 3/8-24 Thd.	
51	12755		Axle Ass'y.—Front R.H.	N
52	736-0169		L-Wash. 3/8" Scr.*	
53	712-0241		Hex Nut 3/8-24 Thd.*	
54	12752		Axle Ass'y.—Front L.H.	N
55	748-0193		Spacer .380 I.D. x .630 O.D. x .575 Lg.	
56	12411		Front Pivot Bracket	
57	710-0622		Hex Scr. 5/8-18 x 1.62" Lg.*	
58	12791		Grille Screen	N
59	710-0192		Truss Scr. #10-24 x .375" Lg.*	
60	712-0121		Hex Nut #10-24 Thd.*	
61	736-0722		L-Wash. #10 Scr.*	
62	12782		Lower Side Panel R.H.	N
63	12781		Lower Grille Panel	N
64	712-0375		Hex Cent. L-Nut 3/8-16 Thd.	
65	12814		Front Grille Upper Ass'y. (485A only)	N
	12808		Front Grille Upper (480A only)	N
66	727-0199		Hood Stop	
67	736-0463		Fl-Wash. .25 I.D. x .62 O.D.	
68	736-0722		L-Wash. #10 Scr.*	
69	712-0121		Hex Nut #10-24 Thd.*	
70	736-0101		Fl-Wash. .380 I.D. x 1.00 O.D.	
71	735-0126		Rubber Wash. .3[illegible] x .87 O.D.	
72	710-0253		Hex Scr. 3/8-16 x 1.[illegible]	
73	710-0258		Hex Scr. ¼-20 x .62" Lg.	
74	12780		Front Hood	N
75	723-0155		Fuel Gauge—Cap	
76	735-0179		Rubber Grommet (Fuel Tank Neck)	
77	731-0345		Dash Panel Insert (480A only)	N
	731-0346		Dash Panel Insert (485A only)	N
78	12795		Dash Panel Ass'y. (480A only)	N
	12798		Dash Panel Ass'y. (485A only)	N
79	712-0222		Speed Nut Push On 5/8" Dia.	
80	725-0480		Vinyl Sealing Tape	N
81	12784	—462	Side Panel R.H.	N
82	712-0287		Hex Nut ¼-20 Thd.*	
83	736-0329		L-Wash. ¼" Scr.*	
84	12785	—462	Side Panel L.H.	N
85	710-0621		Hex Scr. 5/16-18 x .50" Lg.*	
86	12783	—462	Lower Side Panel L.H.	N
87	726-0157		Speed Nut 1/8" Stud	N
88	712-0147		Speed Nut #10-24 "U"-Type	N
89	751-0182		Fuel Tank	N
90	732-0255		Seat Spring 4.50" High	
91	751-0183		Engine Brace	
92	710-0289		Hex Scr. ¼-20 x .50" Lg.*	
93	11852		Upper Frame	
94	751-0173		Fuel Line	
95	751-0171		Fuel Shut-Off Valve	
96	735-0149		Bushing—Fuel Tank (Valve)	
97	710-0342		Hex Scr. 3/8-16 x 1.25" Lg.*	
98	725-0270		Solenoid (485A only)	
99	736-0222		Ext. L-Wash. ¼" Scr.* (485A only)	
100	748-0228		Hex Flange Brg. .500" I.D.	

(462—Red Flake)

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

When ordering parts, if color or finish is important use the appropriate color code shown above (e.g. Red Flake Finish—11839 (462).)

136-480A
136-485A



NOTE: If for any reason disc brake is disassembled, be sure round end of push pin (Ref. No. 97) is toward the cam lever (Ref. No. 93).

FRAME VIEW

PARTS LIST FOR MODEL 136-480A AND 136-485A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	—		Engine	
2	710-0442		Hex Scr. 5/16-18 x 1.50" Lg.*	
3	—		Part of Engine	
4	751-0188		Muffler Strap	N
5	736-0119		L-Wash. 5/16" Scr.*	
6	712-0267		Hex Nut 5/16-18 Thd.*	
7	710-0456		Hex Drill Scr. #10 x .50" Lg.	
8	736-0329		L-Wash. ¼" Scr.*	
9	710-0258		Hex Scr. ¼-20 x .62" Lg.*	
10	751-0186		Exhaust Pipe Ass'y.	N
11	726-0132		Hose Clamp	
12	751-0190		Muffler w/1.120 I.D. Inlet	
13	11057		Parking Brake—Lever Ass'y.	
14	12379		Clutch Pedal Pad	
15	11037		Clutch Pedal Ass'y.	
16	714-0507		Cotter Pin 3/32" Dia. x .75" Lg.*	
17	12654		Belt Guard Ass'y.—Engine	
18	11090		Frame Ass'y.	
19	712-0267		Hex Nut 5/16-18 Thd.*	
20	736-0105		Bell.-Wash. .400 I.D. x .88 O.D.	
21	738-0215		Shld. Scr. .489" Dia. x 3.00" Lg.	
22	710-0259		Hex Sems Scr. 5/16-18 x .62" Lg.*	
23	12160		Belt Keeper Ass'y.	
24	747-0112		Clutch Rod	
25	12448		Idler Brkt. Ass'y.	
26	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	
27	12806		Parking Brake—Lever Ass'y.	N
28	712-0375		Hex Cent. L-Nut 3/8-16 Thd.	
29	711-0630		Spacer .380 I.D. x .50 O.D. x .562	N
30	11039		Pedal "U"-Brkt. Ass'y.	
31	750-0298		Spacer .384 I.D. x .500 O.D. x 1.43" Lg.	
32	736-0119		L-Wash. 5/16" Scr.*	
33	712-0267		Hex Nut 5/16-18 Thd.*	
34	710-0198		Hex Sems Scr. 5/16-18 x .75" Lg.*	
35	11845		Transmission Belt Guard	
36	710-0194		Hex Scr. 3/8-16 x 3.00" Lg.*	
37	714-0129		#4 Hi-Pro Key 3/32" x 5/8" Dia. Hdn.	
38	712-0287		Hex Nut ¼-20 Thd.*	
39	736-0329		L-Wash. ¼" Scr.*	
40	761-0148		Blade Brake Ass'y. 1.38" High	
41	710-0198		Hex Sems Scr. 5/16-18 x .75" Lg.	
42	12813		Brake Pedal Ass'y.	N
43	12378		Brake Pedal Pad	
44	710-0134		Carriage Bolt ¼-20 x .62" Lg.*	
45	726-0121		Push Cap ¼" Dia. Black	
46	712-0267		Hex Nut 5/16-18 Thd.*	
47	736-0119		L-Wash. 5/16" Scr.*	
48	738-0140		Shld. Scr. .437 Dia. x .180	
49	732-0245		Extension Spring .90 O.D. x 3.75" Lg.	
50	736-0119		L-Wash. 5/16" Scr.*	
51	712-0267		Hex Nut 5/16-18 Thd.*	
52	732-0191		Spring .75 O.D. x 11.00" Lg.	
53	736-0119		L-Wash. 5/16" Scr.*	
54	712-0267		Hex Nut 5/16-18 Thd.*	
55	710-0322		Hex Sems Scr. 5/16-18 x 1.00" Lg.*	
56	747-0106		Brake Rod .25" Dia. x 23.50" Lg.	
57	710-0198		Hex Sems Scr. 5/16-18 x .75" Lg.*	
58	10398		Disc Brake Brkt. Ass'y.	
59	712-0287		Hex Nut ¼-20 Thd.*	
60	736-0329		L-Wash. ¼" Scr.*	
61	10410		Spring Brkt.	
62	710-0258		Hex Scr. ¼-20 x .62" Lg.*	
63	713-0163		#420 Chain ½" Pitch x 79 Links	
64	741-0199		Plastic Flange Brg. w/Flats	N
65	10364		Rear Axle Plate	
66	710-0437		Chain Adj. Link 5/16-18 x 4.38" Lg.	
67	712-0429		Hex Ins. L-Nut 5/16-18 Thd.	
68	732-0157		Spring .38 O.D. x 3.25" Lg.	
69	10360		Axle Bolt Plate Ass'y.	
70	10362		Rear Axle Brkt. Ass'y.	
71	710-0198		Hex Sems Scr. 5/16-18 x .75" Lg.*	
72	736-0119		L-Wash. 5/16" Scr.*	
73	712-0267		Hex Nut 5/16-18 Thd.*	
74	710-0412		Hex Scr. ¼-28 x .75" Lg.	
75	736-0242		Bell.-Wash. .345 I.D. x .88 O.D.	
76	710-0237		Hex Scr. 5/16-24 x .62" Lg.*	
77	735-0126		Rubber Wash. .33 I.D. x .87 O.D.	
78	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	
79	736-0159		Fl-Wash. .344 I.D. x .88 O.D.	
80	11846		Shift Lever Brkt. Ass'y.	
81	11545		Shift Lever	
82	720-0165		Knob (For Transmission Lever)	
83	736-0329		L-Wash. ¼" Scr.*	
84	712-0138		Hex Nut ¼-28 Thd.	
85	12797		Transmission Support Brkt.	N
86	761-0137		Disc Brake Ass'y.—Comp.	
87	710-0316		Hex Scr. 3/8-16 x 3.50" Lg.*	
88	761-0138		Spacer for Disc Brake 5/8 O.D.	
89	HH-12-03045		Casting—Carrier Side	
90	HH-11-03436		Spacer	
91	HH-12-03041		Casting—Cam Side	
92	712-0375		Hex Cent. L-Nut 3/8-16 Thd.	
93	HH-18-02770		Cam Lever	
94	HH-03-03032		Thrust Wash. 5/16" I.D.	
95	712-0134		Hex Top L-Nut	
96	HH-06-03031		Spring	
97	HH-05-03034		Push Pin	
98	HH-03-03097		Disc—Back Up	
99	HH-15-02533		Pad—Friction	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

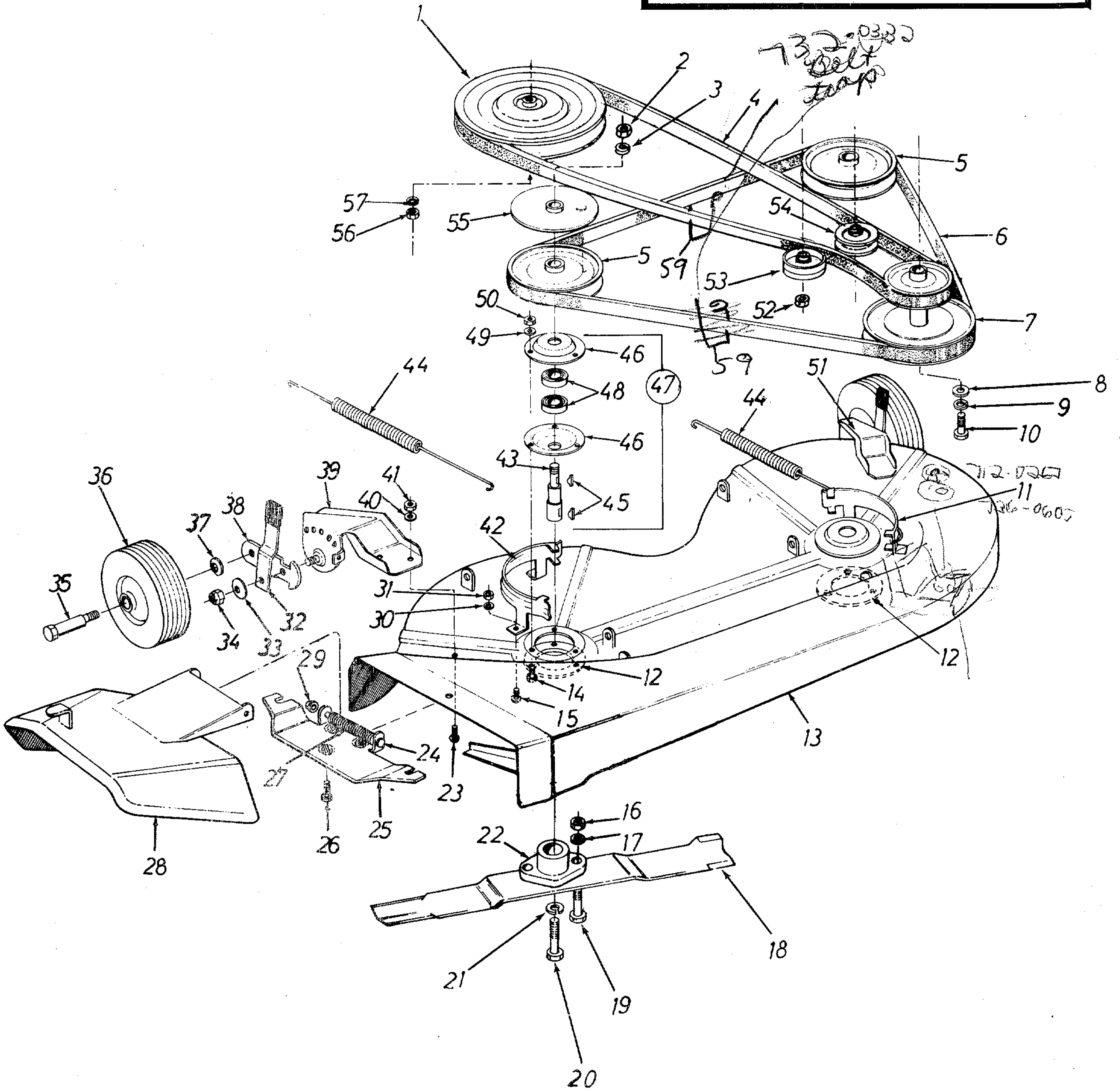
(462—Red Flake)

When ordering parts, if color or finish is important use the appropriate color code shown above (e.g. Red Flake Finish—11839 (462).)

136-480A
136-485A

IMPORTANT

Belts listed by Part Number are of special construction and should be used when replacement is necessary. The dimensions and description given are for general reference only and belts purchased by description and dimension generally will only provide temporary service.



DECK VIEW

PARTS LIST FOR MODEL 136-480A AND 136-485A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	756-0174		Transmission Split Pulley .50 I.D.		31	712-0287		Hex Nut ¼-20 Thd.*	
					32	10949		Spring Lever Ass'y. w/Knob	
2	712-0261		Hex Jam Nut 5/8-11 Thd.		33	736-0105		Bell. Wash. .400 I.D. x .88 O.D.	
3	736-0158		L-Wash. 5/8" Scr.*						
4	754-0191		"V"-Belt ½ x 65" Lg.		34	712-0116		Hex Ins. L-Nut 3/8-24 Thd.	
5	756-0124		Deck Pulley 4.75" O.D.		35	738-0119		Shld. Scr. .625" Dia. x 1.75" Lg.	
6	754-0151		"V"-Belt 21/32 x 67" Lg.						
7	756-0253		Two Step Engine Pulley		36	734-0295		Wheel Ass'y. 5.0" Dia.	
8	736-0235		Fl-Wash. .406 I.D. x 1.25 O.D.		37	736-0105		Bell.-Wash. .400 I.D. x .88 O.D.	
9	736-0169		L-Wash. 3/8" Scr.*		38	10937		Wheel Pivot Bar	
10	710-0152		Hex Scr. 3/8-24 x 1.00" Lg.*		39	11236		Wheel Brkt. Ass'y.—R.H.	
11	12672		Belt Guard—L.H.		40	736-0329		L-Wash. ¼" Scr.*	
12	09164		Deck Reinforcement Plate		41	712-0287		Hex Nut ¼-20 Thd.*	
13	12674		34" Deck Ass'y.		42	12673		Belt Guard—R.H.	
14	710-0322		Hex Sems Scr. 5/16-18 x 1.00" Lg.*		43	711-0255		Blade Spindle	
					44	732-0307		Spring (Deck)	
15	710-0289		Hex Scr. ¼-20 x .50" Lg.*		45	714-0365		#6 Hi-Pro Key 5/32" x 5/8" Dia.	
16	712-0123		Hex Nut 5/16-24 Thd.*						
17	736-0119		L-Wash. 5/16" Scr.*		46	08253		Bearing Housing	
18	742-0120		17" Blade		47	09321		Blade Spindle Ass'y. Comp.	
19	710-0117		Hex Scr. 5/16-24 x 1.00" Lg. H.T.		48	741-0919		Ball Brg. .787 I.D [illegible] O.D.	
20	710-0459		Hex Scr. 3/8-24 x 1.50" Lg. H.T.		49	736-0329		L-Wash. ¼" Scr.*	
					50	712-0287		Hex Nut ¼-20 Thd.*	
21	736-0217		L-Wash. 3/8" Scr. H.D.		51	11237		Wheel Brkt. Ass'y. L.H.	
22	10769		Blade Adapter Kit		52	712-0116		Hex Ins. L-Nut 3/8-24 Thd.	
23	710-0289		Hex Scr. ¼-20 x .50" Lg.*		53	756-0217		Fl-Idler 2.75" O.D.	
24	711-0571		Pivot Pin		54	756-0116		"V"-Belt Idler 3.06" O.D.	
25	11399		Adapter Plate Ass'y.		55	09322		Blade Brake Disc	
26	710-0195		Hex Scr. ¼-28 x .62" Lg.*		56	712-0922		Hex Jam Nut ½-20 Thd.	
27	732-0261		Torsion Spring		57	736-0921		L-Wash. ½" Scr.*	
28	11574		Chute Cover Ass'y.		58	11917		34" Deck Ass'y. Comp. (For Service Only)	
29	726-0106		Push Nut ¼" Rod						
30	736-0329		L-Wash. ¼" Scr.*		59	732-332		Belt [illegible]	

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(462—Red Flake) When ordering parts if color or finish is important, use color code shown at left. (e.g. Red Flake Finish—11839 (462).)

PARTS INFORMATION

POWER EQUIPMENT PARTS AND SERVICE

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts numbers, description of parts and the quantity of each part required.

State	City	Firm	Address	ZIP
ALABAMA	**BIRMINGHAM**	Auto Electric & Carburetor Co.	2625 4th Ave. S.	35233
ARKANSAS	**NORTH LITTLE ROCK**	Sutton's Lawn Mower Shop	Rt. 4, Box 368	72117
	FORT SMITH	Mity Mite Motors, Inc.	2515 Towson Ave.	72901
CALIFORNIA	**SAN BERNARDINO**	Lawn Mower Supply Co.	25608 E. Baseline	92410
	SAN FRANCISCO	J.W. Jewett Co.	981 Folsom St.	94107
	SACRAMENTO	Luttig & Severson	2030 28th St.	95818
COLORADO	**DENVER**	South Denver Lawn Equip.	527 West Evans	80223
CONNECTICUT	**SUFFIELD**	The Jones & Ramsey Co.	850 Thompsonville Rd.	06078
FLORIDA	**JACKSONVILLE**	Radco Distributors	2403 Market St.	32206
	CORAL GABLES	Moz-All of Florida, Inc.	365 Greco Ave.	33146
GEORGIA	**EAST POINT**	East Point Cycle & Key	2834 Church St.	30344
ILLINOIS	[illegible]	Keen Edge [illegible]	8615 Ogden Ave.	60534
INDI[illegible]	**ELKHART**	[illegible] & Sales Inc.	2101 Industrial Pkwy.	46514
	CORYDON	Brown Equip. Dist., Inc.	110 Beech St.	47112
IOWA	**DUBUQUE**	Power Lawn & Garden Equip.	2551 J.F. Kennedy	52001
KANSAS	**WICHITA**	Hixon, Inc.	3030 Mascot	67204
LOUISIANA	**NEW ORLEANS**	Suhren Engine Co.	8330 Earhart Blvd.	70118
MARYLAND	**TAKOMA PARK**	Center Supply Co.	6867 New Hampshire Ave.	20012
MASSACHUSETTS	**SPRINGFIELD**	Morton B. Collins Co.	300 Birnie Ave.	01107
MICHIGAN	**MOUNT CLEMENS**	Power Equipment Dist.	36463 South Gratiot	48043
	LANSING	Lorenz Service Co.	2500 S. Pennsylvania	48900
MINNESOTA	**MINNETONKA**	Hance Distributing Inc.	11212 Wayzata Blvd.	55343
MISSISSIPPI	**BILOXI**	Biloxi Sales & Service, Inc.	506 Caillavet St.	39533
MISSOURI	**KANSAS CITY**	Automotive Equip. Service	3117 Holmes St.	64109
	ST. LOUIS	Henzler, Inc.	2015 Lemay Ferry Rd.	63125
NEBRASKA	**OMAHA**	R.P.W., Inc.	7402 "L" St.	68127
NEW YORK	**CARTHAGE**	Gamble Dist., Inc.	West End Ave.	13619
	SYRACUSE	Kimber's, Inc.	115 N. Geddes St.	13204
	ROCHESTER	Henry W. O'Neil & Associates	410 N. Goodman St.	14609
NORTH CAROLINA	**GREENSBORO**	Dixie Sales Company	327 Battleground Ave.	27402
	GOLDSBORO	Smith Hardware Co.	515 N. George St.	27530
OHIO	**WADSWORTH**	National Central	687 Seville Rd.	44281
	CLEVELAND	Bleckrie, Inc.	7900 Lorain Ave.	44102
	CARROL	Stebe's Mid-State Mower Supply	Box 366	43112
	WILLARD	Sunshine Wholesale Tire Outlet	Route 224	44890
	MANSFIELD	McClure Lawn & Garden Supply	1114 Lexington Ave.	44903
OKLAHOMA	**MUSKOGEE**	Victory Motors, Inc.	605 S. Cherokee	74401
	ADA	Ada Auto Supply	301 E. 12th St.	74820
OREGON	**PORTLAND**	Kenton Supply Co.	8216 N. Denver Ave.	97217
PENNSYLVANIA	**LANCASTER**	Raub Supply Co.	James & Mulberry Sts.	17604
	PITTSBURGH	Bluemont Co.	11125 Frankstown Rd.	1523[illegible]
TENNESSEE	**KNOXVILLE**	Master Repair Service	2423 Broadway, N.E.	37917
	MEMPHIS	Memphis Cycle & Supply Co.	421 Monroe Ave.	38103
		American Sales & Service, Inc.	1922 Lynnbrook	38117
TEXAS	**DALLAS**	Marr Brothers, Inc.	423 E. Jefferson	75203
	HOUSTON	Bullard Supply Co.	2409 Commerce St.	77003
	SAN ANTONIO	Catto & Putty, Inc.	P.O. Box 2408	78206
	FORT WORTH	Woodson Sales Corp.	1702 N. Sylvania	76111
UTAH	**SALT LAKE CITY**	A-1 Engine & Mower Co.	437 E. 9th St.	84111
VERMONT	**BURLINGTON**	Vermont Appliance Co.	44 Lakeside Ave.	05401
VIRGINIA	**RICHMOND**	RBI Corp.	963 Myers St.	23260
WASHINGTON	**SEATTLE**	Bailey's Rebuild, Inc.	1325 E. Madison St.	98102
WEST VIRGINIA	**CHARLESTON**	Young's, Inc.	233 Virginia St., E.	25301
WISCONSIN	**APPLETON**	Automotive Supply Co.	123 S. Linwood Ave.	54911

BRIGGS & STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service should be handled by your nearest authorize engine service firm. Check the yellow pages of your telephone directory under the listing *Engines — Gasoline,* Briggs & Stratton or Tecumseh Lauson —

WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture, It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions over which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES

1. Replacement of Missing Parts on new equipment.
2. Replacement of Defective Parts within the warranty period.
3. Repair of Defects within the warranty period.

All claims MUST be substantiated with the following information:

1. Model Number of unit involved.
2. Date unit was purchased or first put into service.
3. Date of failure.
4. Nature of failure.